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<211> 1052

<212> PRT

<213> Homo sapiens

<400> 4306

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<212> DNA

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<210> 4310

<211> 599
 <212> PRT
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<400> 4310

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Val Asp Met Leu Asn Val Phe Asp Phe Glu Lys Ala Gly Asn Ser Glu
          435          440          445
Pro Asn Glu Leu Lys Asn Glu Ser Glu Val Thr Ile Gln Gln Glu Arg
          450          455          460
Gln Gln Tyr Gln Lys Ala Leu Asp Met Leu Leu Ser Ala Pro Lys Asp
465          470          475          480
Glu Asn Glu Ile Phe Pro Ser Pro Thr Glu Phe Phe Met Pro Ile Tyr
          485          490          495
Lys Ser Lys His Ser Glu Gly Val Ile Ile Gln Gln Val Asn Asp Glu
          500          505          510
Thr Asn Leu Glu Thr Ser Thr Leu Asp Glu Asn His Pro Ser Ile Ser
          515          520          525
Asp Ser Leu Thr Asp Arg Glu Thr Ser Val Asn Val Ile Glu Gly Asp
          530          535          540
Ser Asp Pro Glu Lys Val Glu Ile Ser Asn Gly Leu Cys Gly Leu Asn
545          550          555          560
Thr Ser Pro Ser Gln Ser Val Gln Phe Ser Ser Val Lys Gly Asp Asn
          565          570          575
Asn His Asp Met Glu Leu Ser Thr Leu Lys Ile Met Glu Met Ser Ile
          580          585          590
Glu Asp Cys Pro Leu Asp Val
          595

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<210> 4311
<211> 432
<212> DNA
<213> Homo sapiens

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<400> 4311
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cagagcattt tgtttaatat caacgaagcc atggctacga gggctaattgt ggggaaaagg
120
aaaaacataa ccaactggggc atctgcagca tcccagactc agatgcctac gggccagaca
180
ggcaactgtg agtccccctt agggagcaag gaggacctca actccaaaga gaacctggat
240
gccgatgagg gagatgggaa aagtaacgac ctgcctctta gttgtcctta ctttagaaat
300
gagactggag gggaaggcga caggcggatt gcgctctctc gagccaactc atcctctttc
360
agttctgggg aaagctgctc tttcgaatcg tcaactcagct ctactgcac aaatgcagg
420
gtctccgtct tg
432

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<210> 4312
<211> 144
<212> PRT

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<213> Homo sapiens

<400> 4312

Xaa	Arg	Val	Lys	Gly	Ile	Arg	Pro	Trp	Asn	Cys	Gln	Arg	Cys	Phe	Ala
1				5					10					15	
His	Tyr	Asp	Val	Gln	Ser	Ile	Leu	Phe	Asn	Ile	Asn	Glu	Ala	Met	Ala
			20					25					30		
Thr	Arg	Ala	Asn	Val	Gly	Lys	Arg	Lys	Asn	Ile	Thr	Thr	Gly	Ala	Ser
		35				40						45			
Ala	Ala	Ser	Gln	Thr	Gln	Met	Pro	Thr	Gly	Gln	Thr	Gly	Asn	Cys	Glu
		50				55					60				
Ser	Pro	Leu	Gly	Ser	Lys	Glu	Asp	Leu	Asn	Ser	Lys	Glu	Asn	Leu	Asp
65					70					75				80	
Ala	Asp	Glu	Gly	Asp	Gly	Lys	Ser	Asn	Asp	Leu	Val	Leu	Ser	Cys	Pro
				85					90					95	
Tyr	Phe	Arg	Asn	Glu	Thr	Gly	Gly	Glu	Gly	Asp	Arg	Arg	Ile	Ala	Leu
			100					105					110		
Ser	Arg	Ala	Asn	Ser	Ser	Ser	Phe	Ser	Ser	Gly	Glu	Ser	Cys	Ser	Phe
		115					120				125				
Glu	Ser	Ser	Leu	Ser	Ser	His	Cys	Thr	Asn	Ala	Gly	Val	Ser	Val	Leu
		130				135					140				

<210> 4313

<211> 936

<212> DNA

<213> Homo sapiens

<400> 4313

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aggtgctgcc tgacagggtc ttctctccct gtctctgggc attgatccat ctctttgtcc
120
attcagtatc caaccatcct ctccattctc ctctggacct caccactctc agagctgctt
180
gtcctggcag aatctacagt tcaccccaac tctatgcctt acccctccca acccaacagc
240
atttgagtt tgcaaaatat acagacccaa gtctgaggg gactgaggac atgatgctgg
300
gcccaagtct cctgctcagg gcttctctcc aatgccagcc ctgccactcc ttcctcacc
360
tccttgagc ctctctgct gcttgctctat cccaacggcc ctgctcccct cccttctgc
420
ccttcaccag ctttctggga caccatgccc tgaggaaggg acctttggtt ttctctaaac
480
atctttgaag ggctgaggca gtcagggtg gctgccttgt cactctttat ttggaagcca
540
ctcaaaccat tccaagaag agggacctca gctggcaatc tggaaacctg gccaggtct
600
gggcagatgt cttcacttct cctaccttcc cagtcttggt atcctgtgat gagcaccagg
660
atggccctgt ggtccctaga gcacccctca tgctgtaggg tctgcagcc ccacctttc
720
tctactgggc cctggtatcc tggtctctct ctacgtctg ccactgatct ctgtgcctta
780

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gtttacttct ctgcacgggg gactcacccc aagaccattt ccagcagctt cccaggtgat
 840
 gtgggtcccc aaggctgggc tttgcagctg tggeccagct ccttagtgct gcccaggaga
 900
 caccaggctg ctccagaatga ggtgactgcg ggcaac
 936

<210> 4314
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 4314
 Met Ser Ser Leu Leu Leu Pro Ser Gln Ser Cys Asp Pro Val Met Ser
 1 5 10 15
 Thr Arg Met Ala Leu Trp Ser Leu Glu His Pro Ser Cys Cys Arg Val
 20 25 30
 Leu Gln Pro His Pro Phe Ser Thr Gly Pro Trp Tyr Pro Gly Ser Ser
 35 40 45
 Leu Ser Ser Ala Thr Asp Leu Cys Ala Leu Val Tyr Phe Ser Ala Arg
 50 55 60
 Gly Thr His Pro Lys Thr Ile Ser Ser Ser Phe Pro Gly Asp Val Val
 65 70 75 80
 Pro Gln Gly Trp Ala Leu Gln Leu Trp Pro Ser Ser Leu Val Leu Pro
 85 90 95
 Arg Arg His Gln Ala Ala Gln Asn Glu Val Thr Ala Gly Asn
 100 105 110

<210> 4315
 <211> 573
 <212> DNA
 <213> Homo sapiens

<400> 4315
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 cagagcgatg accatgtgaa gacacaggga agagatggcc acctaccacc acgccatggt
 120
 cacctaccat ccaagccatg gtcaccttca ccaagccaca gtcattctacc atccaagcca
 180
 ccgtcaccta ccatccaagc catggccacc tacctgccaa gccatggcca cctaccggcc
 240
 aagccatggt cacctacca ccaagtcatg gtgcctacc atccaaggag caggcctgga
 300
 acagatcctt cccagagcc ctccagtagga gccaacctg ctgacacctt gatctcagac
 360
 ttcaagcctc cagaactgtg ggacaatcct tcaactgtcat ttaatccacc cagcatgtgg
 420
 tctcttgta cagttgcatt agccagtga cctaccggg cccttctgca gtgcctggc
 480
 tcaggagtgg ttctggtcag gaagttctga ggccaggcag gatcgggaca ctccctggaa
 540
 agaccggagg gagatatttg ggaaacaaga tgg
 573

<210> 4316
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4316
 Xaa Leu Ile Gln Tyr Asp Trp Cys Pro Tyr Lys Lys Arg Lys Leu Gly
 1 5 10 15
 His Arg Gln Ala Gln Ser Asp Asp His Val Lys Thr Gln Gly Arg Asp
 20 25 30
 Gly His Leu Pro Pro Arg His Gly His Leu Pro Ser Lys Pro Trp Ser
 35 40 45
 Pro Ser Pro Ser His Ser His Leu Pro Ser Lys Pro Pro Ser Pro Thr
 50 55 60
 Ile Gln Ala Met Ala Thr Tyr Leu Pro Ser His Gly His Leu Pro Ala
 65 70 75 80
 Lys Pro Trp Ser Pro Thr His Gln Val Met Val Ala Tyr His Pro Arg
 85 90 95
 Ser Arg Pro Gly Thr Asp Pro Ser Pro Glu Pro Ser Val Gly Ala Asn
 100 105 110
 Pro Ala Asp Thr Leu Ile Ser Asp Phe Lys Pro Pro Glu Leu Trp Asp
 115 120 125
 Asn Pro Ser Leu Ser Phe Asn Pro Pro Ser Met Trp Ser Leu Val Thr
 130 135 140
 Val Ala Leu Ala Ser Glu Pro Thr Arg Ala Leu Leu Gln Ser Pro Gly
 145 150 155 160
 Ser Gly Val Val Leu Val Arg Lys Phe
 165

<210> 4317
 <211> 744
 <212> DNA
 <213> Homo sapiens

<400> 4317
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 tcccatgccg aaaacataact ccagatatctt aatgaatttc gtgatagccg cttattcaca
 120
 gatgttatca tttgggtgga aggaaaagaa tttccttgcc atagagctgt gctctcagcc
 180
 tgtagcagct acttcagagc tatgttttgt aatgaccaca gggaaagccg agaaatgttg
 240
 gttgagatca atggtatctt agctgaagct atggaatggt ttttgcagta tgtttatact
 300
 ggaaagggtga agatcactac agagaatgta cagtatctct ttgagacatc aagcctcttt
 360
 cagattagtg ttctccgtga tgcattgtgc aagttcttgg aggagcaact tgatccttgt
 420
 aattgcttag gaatccagcg ctttctgtgat acccattcac tcaaaacact cttcacaata
 480
 tgcaaaaatt ttgcgttaca gacttttgag gatgtatccc agcacgaaga atttcttgag
 540

cttgacaaag atgaacttat tgattatatt tgtagtgatg aacttggttat tggtaaagag
 600
 gagatgggttt ttgaagccgt catgcgttgg gtctatcgtg ccgttgatct gagaagacca
 660
 ctgttacacg agctcctgac acatgtgaga ctccctctgt tgcaccccaa ctactttgtt
 720
 caaacagttg aagtggacca attg
 744

<210> 4318
 <211> 239
 <212> PRT
 <213> Homo sapiens

<400> 4318
 Pro Val Arg Asp Leu Gly Ser Ile Ser Gly Ser Ser His Ala Glu Asn
 1 5 10 15
 Ile Leu Gln Ile Phe Asn Glu Phe Arg Asp Ser Arg Leu Phe Thr Asp
 20 25 30
 Val Ile Ile Trp Val Glu Gly Lys Glu Phe Pro Cys His Arg Ala Val
 35 40 45
 Leu Ser Ala Cys Ser Ser Tyr Phe Arg Ala Met Phe Cys Asn Asp His
 50 55 60
 Arg Glu Ser Arg Glu Met Leu Val Glu Ile Asn Gly Ile Leu Ala Glu
 65 70 75 80
 Ala Met Glu Cys Phe Leu Gln Tyr Val Tyr Thr Gly Lys Val Lys Ile
 85 90 95
 Thr Thr Glu Asn Val Gln Tyr Leu Phe Glu Thr Ser Ser Leu Phe Gln
 100 105 110
 Ile Ser Val Leu Arg Asp Ala Cys Ala Lys Phe Leu Glu Glu Gln Leu
 115 120 125
 Asp Pro Cys Asn Cys Leu Gly Ile Gln Arg Phe Ala Asp Thr His Ser
 130 135 140
 Leu Lys Thr Leu Phe Thr Lys Cys Lys Asn Phe Ala Leu Gln Thr Phe
 145 150 155 160
 Glu Asp Val Ser Gln His Glu Glu Phe Leu Glu Leu Asp Lys Asp Glu
 165 170 175
 Leu Ile Asp Tyr Ile Cys Ser Asp Glu Leu Val Ile Gly Lys Glu Glu
 180 185 190
 Met Val Phe Glu Ala Val Met Arg Trp Val Tyr Arg Ala Val Asp Leu
 195 200 205
 Arg Arg Pro Leu Leu His Glu Leu Leu Thr His Val Arg Leu Pro Leu
 210 215 220
 Leu His Pro Asn Tyr Phe Val Gln Thr Val Glu Val Asp Gln Leu
 225 230 235

<210> 4319
 <211> 388
 <212> DNA
 <213> Homo sapiens

<400> 4319
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ccaggccgta gccacagcaa ggaccgaacc ctgggaaaac cagacagcct ttagtgcct
 120
 gcagtcgcaa gtgactcttg caataatagc atctcactcc tatctgaaaa gttgacaagc
 180
 agctgttccc cccatcatat caagagaagt gtagtggaag ctatgcaacg ccaagctcgg
 240
 aaaatgtgca attacgacaa aatcttggcc acaaagaaaa acctagacca tgtcaataaa
 300
 atcttaaaag ccaaaaaact tcaaaggcag gccaggacag ggaataactt tgtgaaacgt
 360
 aggccaggtc gaccgcggtc ggagagag
 388

<210> 4320

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4320

Xaa	Met	Glu	Lys	Ser	Ile	Asp	Ala	Val	Ile	Ala	Thr	Ala	Ser	Ala	Pro
1				5					10					15	
Pro	Ser	Ser	Ser	Pro	Gly	Arg	Ser	His	Ser	Lys	Asp	Arg	Thr	Leu	Gly
			20					25					30		
Lys	Pro	Asp	Ser	Leu	Leu	Val	Pro	Ala	Val	Ala	Ser	Asp	Ser	Cys	Asn
		35					40					45			
Asn	Ser	Ile	Ser	Leu	Leu	Ser	Glu	Lys	Leu	Thr	Ser	Ser	Cys	Ser	Pro
	50					55					60				
His	His	Ile	Lys	Arg	Ser	Val	Val	Glu	Ala	Met	Gln	Arg	Gln	Ala	Arg
65					70					75				80	
Lys	Met	Cys	Asn	Tyr	Asp	Lys	Ile	Leu	Ala	Thr	Lys	Lys	Asn	Leu	Asp
			85					90					95		
His	Val	Asn	Lys	Ile	Leu	Lys	Ala	Lys	Lys	Leu	Gln	Arg	Gln	Ala	Arg
		100					105					110			
Thr	Gly	Asn	Asn	Phe	Val	Lys	Arg	Arg	Pro	Gly	Arg	Pro	Arg	Ser	Glu
		115					120					125			

Arg

<210> 4321

<211> 278

<212> DNA

<213> Homo sapiens

<400> 4321

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 gaccaggctc cttggtgaga agaccaccac agcggcaggg tccagccaca gcaggcccgg
 120
 cgtcccgggtg gaaggcagcc ctgggcggaa cccaggcggt taacgggtca ctaggcagcc
 180
 ccagatctgg ggaacagatg agcacgtggg gagctggagt gagctgagca gaagttttgt
 240
 gccgcgctgc ccccatcccc tccaggccac gttttaga
 278

<210> 4322
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 4322
 Met Gly Ala Gly Gly His Lys Thr Ser Ala Gln Leu Thr Pro Ala Pro
 1 5 10 15
 His Val Leu Ile Cys Ser Pro Asp Leu Gly Leu Pro Ser Glu Pro Leu
 20 25 30
 Asn Ala Trp Val Pro Pro Arg Ala Ala Phe His Arg Asp Ala Gly Pro
 35 40 45
 Ala Val Ala Gly Pro Cys Arg Cys Gly Gly Leu Leu Thr Lys Glu Pro
 50 55 60
 Gly Leu Ala Ala Trp Asn Asn Leu Gln Val Gly Val Leu Arg Gly Leu
 65 70 75 80
 Trp Gln Val Leu Gly
 85

<210> 4323
 <211> 1542
 <212> DNA
 <213> Homo sapiens

<400> 4323
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 ctgaaagact cgacattcag ccagtttagc ccgatctcca gtgctgaaga gtttgatgac
 120
 gacgagaaga ttgagggtgga tgacccccct gacaaggagg acatgcgatc aagcttcagg
 180
 tcgaatgtgt tgacgggggtc ggctccccag caggactacg ataagctgaa ggcactcgga
 240
 ggggaaaact ccagcaaaac tggactctct acgtcaggca atgtggagaa aaacaaagct
 300
 gttaagagag aaacagaagc cagttctata aacctgagtg tttatgaacc ttttaaagtc
 360
 agaaaagcag aggataaatt gaaggaaagc tctgacaagg tgctggaaaa cagagtccta
 420
 gatgggaagc tgagctccga gaagaatgac accagcctcc ccagcgttgc gccatcaaag
 480
 acaaagtcgt cctccaagct ctcgctctgc atcgctgcca tcgcggtctc cagcgctaaa
 540
 aaggcggctt cagactcctg caaagaacca gtggccaatt cgagggaatc ctccccgtta
 600
 ccaaaagaag taaatgacag tccgagagcc gctgacaagt ctctgaatc ccagaatctc
 660
 atcgacggga ccaaaaaacc atccctgaag caaccggata gtcccagaag catctcaagt
 720
 gagaacagca gcaaaggatc cccgtcctct cccgcgggggt ccacaccagc aatccccaaa
 780
 gtccgcataa aaaccattaa gacatcttct ggggaaatca agagaacagt gaccagggtg
 840

ttgccagaag tggatcttga ctctggaaag aaaccttccg agcagacagc gtccgtcatg
 900
 gcctctgtga catcccttct gtcgtctcca gcatcagccg ccgtcctttc ctctcccccc
 960
 agggcgcttc tccagtctgc ggtcgtgacc aatgcagttt cccttcgaga gctcaccccc
 1020
 aaacaggtca caatcaagcc tgtggctact gctttctctc cagtgtctgc tgtgaagacg
 1080
 gcaggatccc aagtcattaa tttgaagctc gctaacaaca ccacggtgaa agccacggtc
 1140
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 1200
 cagcagcaaa ctgtcgtggt gccggcatcc agcctggcca atgccaaact cgtgccaaag
 1260
 actgtgcacc ttgccaacct taaccttttg cctcagggtg ccaggccac ctctgaactc
 1320
 cgccaagtgc taaccaaacc tcagcaacaa ataaagcagg caataatcaa tgcagcagcc
 1380
 tcgcaacccc ccaaaaagggt gtctcgagtc cagggtggtg cgtccttgca gagttctgtg
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 gtggaagctt tcaacaagggt gctgagcagt gtcaatccag tcctgttta catcccaaac
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<210> 4324

<211> 514

<212> PRT

<213> Homo sapiens

<400> 4324

Xaa	Tyr	Ser	Lys	Asp	Gly	Ala	Lys	Ser	Leu	Lys	Gly	Asp	Val	Pro	Ala
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Ser	Glu	Val	Thr	Leu	Lys	Asp	Ser	Thr	Phe	Ser	Gln	Phe	Ser	Pro	Ile
			20					25					30		
Ser	Ser	Ala	Glu	Glu	Phe	Asp	Asp	Asp	Glu	Lys	Ile	Glu	Val	Asp	Asp
		35				40						45			
Pro	Pro	Asp	Lys	Glu	Asp	Met	Arg	Ser	Ser	Phe	Arg	Ser	Asn	Val	Leu
	50					55					60				
Thr	Gly	Ser	Ala	Pro	Gln	Gln	Asp	Tyr	Asp	Lys	Leu	Lys	Ala	Leu	Gly
65					70					75				80	
Gly	Glu	Asn	Ser	Ser	Lys	Thr	Gly	Leu	Ser	Thr	Ser	Gly	Asn	Val	Glu
			85					90					95		
Lys	Asn	Lys	Ala	Val	Lys	Arg	Glu	Thr	Glu	Ala	Ser	Ser	Ile	Asn	Leu
			100					105					110		
Ser	Val	Tyr	Glu	Pro	Phe	Lys	Val	Arg	Lys	Ala	Glu	Asp	Lys	Leu	Lys
		115				120					125				
Glu	Ser	Ser	Asp	Lys	Val	Leu	Glu	Asn	Arg	Val	Leu	Asp	Gly	Lys	Leu
	130					135					140				
Ser	Ser	Glu	Lys	Asn	Asp	Thr	Ser	Leu	Pro	Ser	Val	Ala	Pro	Ser	Lys
145				150					155					160	
Thr	Lys	Ser	Ser	Ser	Lys	Leu	Ser	Ser	Cys	Ile	Ala	Ala	Ile	Ala	Ala
			165					170					175		
Leu	Ser	Ala	Lys	Lys	Ala	Ala	Ser	Asp	Ser	Cys	Lys	Glu	Pro	Val	Ala

				180					185					190			
Asn	Ser	Arg	Glu	Ser	Ser	Pro	Leu	Pro	Lys	Glu	Val	Asn	Asp	Ser	Pro		
		195					200					205					
Arg	Ala	Ala	Asp	Lys	Ser	Pro	Glu	Ser	Gln	Asn	Leu	Ile	Asp	Gly	Thr		
	210					215					220						
Lys	Lys	Pro	Ser	Leu	Lys	Gln	Pro	Asp	Ser	Pro	Arg	Ser	Ile	Ser	Ser		
225					230					235					240		
Glu	Asn	Ser	Ser	Lys	Gly	Ser	Pro	Ser	Ser	Pro	Ala	Gly	Ser	Thr	Pro		
				245					250					255			
Ala	Ile	Pro	Lys	Val	Arg	Ile	Lys	Thr	Ile	Lys	Thr	Ser	Ser	Gly	Glu		
			260					265					270				
Ile	Lys	Arg	Thr	Val	Thr	Arg	Val	Leu	Pro	Glu	Val	Asp	Leu	Asp	Ser		
		275				280						285					
Gly	Lys	Lys	Pro	Ser	Glu	Gln	Thr	Ala	Ser	Val	Met	Ala	Ser	Val	Thr		
	290					295				300							
Ser	Leu	Leu	Ser	Ser	Pro	Ala	Ser	Ala	Ala	Val	Leu	Ser	Ser	Pro	Pro		
305					310					315					320		
Arg	Ala	Pro	Leu	Gln	Ser	Ala	Val	Val	Thr	Asn	Ala	Val	Ser	Pro	Ala		
				325					330					335			
Glu	Leu	Thr	Pro	Lys	Gln	Val	Thr	Ile	Lys	Pro	Val	Ala	Thr	Ala	Phe		
			340					345					350				
Leu	Pro	Val	Ser	Ala	Val	Lys	Thr	Ala	Gly	Ser	Gln	Val	Ile	Asn	Leu		
		355					360					365					
Lys	Leu	Ala	Asn	Asn	Thr	Thr	Val	Lys	Ala	Thr	Val	Ile	Ser	Ala	Ala		
	370					375					380						
Ser	Val	Gln	Ser	Ala	Ser	Ser	Ala	Ile	Ile	Lys	Ala	Ala	Asn	Ala	Ile		
385					390					395					400		
Gln	Gln	Gln	Thr	Val	Val	Val	Pro	Ala	Ser	Ser	Leu	Ala	Asn	Ala	Lys		
				405					410					415			
Leu	Val	Pro	Lys	Thr	Val	His	Leu	Ala	Asn	Leu	Asn	Leu	Leu	Pro	Gln		
			420					425					430				
Gly	Ala	Gln	Ala	Thr	Ser	Glu	Leu	Arg	Gln	Val	Leu	Thr	Lys	Pro	Gln		
		435					440					445					
Gln	Gln	Ile	Lys	Gln	Ala	Ile	Ile	Asn	Ala	Ala	Ala	Ser	Gln	Pro	Pro		
	450					455				460							
Lys	Lys	Val	Ser	Arg	Val	Gln	Val	Val	Ser	Ser	Leu	Gln	Ser	Ser	Val		
465					470					475					480		
Val	Glu	Ala	Phe	Asn	Lys	Val	Leu	Ser	Ser	Val	Asn	Pro	Val	Pro	Val		
				485					490					495			
Tyr	Ile	Pro	Asn														

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<210> 4325
<211> 1405
<212> DNA
<213> Homo sapiens
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<400> 4325
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cttctgcagg gactgtttca aggccttcta cgtccacaag ttcatagcca tgctgggcaa
120
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gaaccggctc atctttccag gcgagaaggt agcgtctggg tcctgggggt ctgactgagc
 180
 agcctggccc ctcgagggtcc ctgcttggtcc ctccacagc cagcctggcc tgctgcagcc
 240
 cgccagctcc tccttggcct ttgaggacag actcgatgtc ctagatgtcc acgagggtggg
 300
 gtgtctgcct gtgttggagg tgcgggtgcc tgagtgtgt tttttctccc ccagggtgtc
 360
 ttggcgtggg ctggggggcc ttcgtccagc tccatggtct ggcagggttct tgagggcctg
 420
 agccaagatt ctgccaaaag actgcgcttt gtggcaggag tcattctttgt tgacgagggg
 480
 gcagcctgtg gccagagcct agaggagaga tcaaagaccc tggccgaagt gaagccatt
 540
 ctgcaagcaa ctgggttccc atggcatgtg gtggccttag aggaggtgtt cagcctgcc
 600
 ccgtcgtgtc tttggtgtc tgcacaggag ctggtgggat ccgagggggc ctacaaggcg
 660
 gccgtggaca gcttctcca gcagcagtat gtgctggggg ccgggggtgg tcctggccc
 720
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 900
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 960
 accaacctgg cgctgggtcg aggggccttc ctggcctggg atacgggctt ctcgatgag
 1020
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 1080
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 1140
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<210> 4326

<211> 336

<212> PRT

<213> Homo sapiens

<400> 4326

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Ala	Lys	Arg	Leu	Arg	Phe	Val	Ala	Gly	Val	Ile	Phe	Val	Asp	Glu	Gly
	35		40		45										
Ala	Ala	Cys	Gly	Gln	Ser	Leu	Glu	Glu	Arg	Ser	Lys	Thr	Leu	Ala	Glu
	50		55		60										
Val	Lys	Pro	Ile	Leu	Gln	Ala	Thr	Gly	Phe	Pro	Trp	His	Val	Val	Ala
65			70		75				75					80	
Leu	Glu	Glu	Val	Phe	Ser	Leu	Pro	Pro	Ser	Val	Leu	Trp	Cys	Ser	Ala
			85		90				90				95		
Gln	Glu	Leu	Val	Gly	Ser	Glu	Gly	Ala	Tyr	Lys	Ala	Ala	Val	Asp	Ser
	100		105		110										
Phe	Leu	Gln	Gln	Gln	Tyr	Val	Leu	Gly	Ala	Gly	Gly	Gly	Pro	Gly	Pro
	115		120		125										
Thr	Gln	Gly	Glu	Glu	Gln	Pro	Pro	Gln	Pro	Pro	Leu	Asp	Pro	Gln	Asn
	130		135		140										
Leu	Ala	Arg	Pro	Pro	Ala	Pro	Ala	Gln	Thr	Glu	Ala	Leu	Ser	Gln	Leu
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Phe	Cys	Ser	Val	Arg	Thr	Leu	Thr	Ala	Lys	Glu	Glu	Leu	Leu	Gln	Thr
			165		170				170					175	
Leu	Arg	Thr	His	Leu	Ile	Leu	His	Met	Ala	Arg	Ala	His	Gly	Tyr	Ser
	180		185		190										
Lys	Val	Met	Thr	Gly	Asp	Ser	Cys	Thr	Arg	Leu	Ala	Ile	Lys	Leu	Met
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Thr	Asn	Leu	Ala	Leu	Gly	Arg	Gly	Ala	Phe	Leu	Ala	Trp	Asp	Thr	Gly
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Phe	Ser	Asp	Glu	Arg	His	Gly	Asp	Val	Val	Val	Val	Arg	Pro	Met	Arg
225			230		235									240	
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			245		250									255	
Pro	Ser	Val	Phe	Thr	Pro	Ala	Val	Asp	Thr	Lys	Ala	Pro	Glu	Lys	Ala
	260		265		270										
Ser	Ile	His	Arg	Leu	Met	Glu	Ala	Phe	Ile	Leu	Arg	Leu	Gln	Thr	Gln
	275		280		285										
Phe	Pro	Ser	Thr	Val	Ser	Thr	Val	Tyr	Arg	Cys	Val	Trp	Val	Cys	Ala
	290		295		300										
Gly	Gly	Ala	Arg	Val	Cys	Ala	Val	Cys	Gly	Cys	Val	Arg	Val	Val	Ser
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<210> 4327

<211> 551

<212> DNA

<213> Homo sapiens

<400> 4327

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 180
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 420
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<210> 4328

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4328

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Val	Thr	Leu	Leu	Ser	Gln	Arg	Trp	Val	Cys	Pro	Ile	Val	Val	Ser	Arg
			20					25				30			
Ala	Thr	Ser	Ser	Pro	Trp	Leu	Cys	Gly	Leu	Ser	Val	Ser	His	Pro	Gln
		35					40					45			
His	Leu	Asp	Gly	Leu	Arg	Val	Arg	Ala	Lys	Val	Arg	Arg	Pro	Gly	His
	50					55					60				
His	Thr	Ile	Pro	Ala	Thr	Thr	Arg	Trp	Leu	Phe	Leu	Glu	Ser	Glu	Gly
65					70				75					80	
Gly	Arg	Arg	Cys	Leu	Gly	Ser	Trp	Gly	Cys	Leu	Gly	Ser	Glu	Pro	Val
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Arg	Val	Ser	Pro	Ala	Cys	Pro	Ser	Ile	Ser	Trp					
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<210> 4329

<211> 3192

<212> DNA

<213> Homo sapiens

<400> 4329

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 120
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 240
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 300
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 420

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480
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2040

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<210> 4330

<211> 371

<212> PRT

<213> Homo sapiens

<400> 4330

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			20					25					30		
Ser	Arg	Ser	Pro	Gln	Arg	Ser	Pro	Leu	Gln	Ser	Ala	Glu	Ser	Ser	Pro
		35					40				45				
Thr	Ala	Gly	Lys	Lys	Leu	Pro	Glu	Val	Pro	Pro	Ser	Glu	Glu	Glu	Glu

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 Gln Glu Ala Trp Val Asn Ala Leu Leu Gly Arg Ile Phe Trp Asp Phe
 65 70 75 80
 Leu Gly Glu Lys Tyr Trp Ser Asp Leu Val Ser Lys Lys Ile Gln Met
 85 90 95
 Lys Leu Ser Lys Ile Lys Leu Pro Tyr Phe Met Asn Glu Leu Thr Leu
 100 105 110
 Thr Glu Leu Asp Met Gly Val Ala Val Pro Lys Ile Leu Gln Ala Phe
 115 120 125
 Lys Pro Tyr Val Asp His Gln Gly Leu Trp Ile Asp Leu Glu Met Ser
 130 135 140
 Tyr Asn Gly Ser Phe Leu Met Thr Leu Glu Thr Lys Met Asn Leu Pro
 145 150 155 160
 Lys Leu Gly Lys Glu Pro Leu Val Glu Ala Leu Lys Val Gly Glu Ile
 165 170 175
 Gly Lys Glu Gly Cys Arg Pro Arg Ala Phe Cys Leu Ala Asp Ser Asp
 180 185 190
 Glu Glu Ser Ser Ser Ala Gly Ser Ser Glu Glu Asp Asp Ala Pro Glu
 195 200 205
 Pro Ala Gly Glu Thr Asn Ser Ser Ser Gln Gly Glu Gly Tyr Val Gly
 210 215 220
 Gly His Arg Thr Ser Lys Ile Met Arg Phe Val Asp Lys Ile Thr Lys
 225 230 235 240
 Ser Lys Tyr Phe Gln Lys Ala Thr Glu Thr Glu Phe Ile Lys Arg Xaa
 245 250 255
 Ile Glu Glu Val Ser Asn Thr Pro Leu Leu Leu Thr Val Glu Val Gln
 260 265 270
 Glu Cys Arg Gly Thr Leu Ala Val Asn Ile Pro Pro Pro Pro Thr Asp
 275 280 285
 Arg Val Trp Tyr Gly Phe Arg Lys Pro Pro His Val Glu Leu Lys Ala
 290 295 300
 Arg Pro Lys Leu Gly Glu Arg Glu Val Thr Leu Val His Val Thr Asp
 305 310 315 320
 Trp Ile Glu Lys Lys Leu Glu Gln Glu Phe Gln Lys Val Phe Val Met
 325 330 335
 Pro Asn Met Asp Asp Val Tyr Ile Thr Ile Met His Ser Ala Met Asp
 340 345 350
 Pro Arg Ser Thr Ser Cys Leu Leu Lys Asp Pro Pro Val Glu Ala Ala
 355 360 365
 Asp Arg Pro
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<210> 4331

<211> 1355

<212> DNA

<213> Homo sapiens

<400> 4331

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120

gatttaaagt agcctttgca cctcagtttc cttcagaatg ctgcaaaact atatgctaca

180

gtatattgta ttccatttgc agaagaggac ttatcagcag atgccctctt gaatattctt
 240
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 300
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 360
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 420
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 480
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 540
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 600
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 660
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 720
 aatggaatat catttacaat ttgggatcga tggaccgtac atggaaaaga agatttcacc
 780
 ctcttggatt tcataaatgc agtcaaagag aagtatggaa ttgagccaac aatggtggt
 840
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 900
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 960
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 1020
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<210> 4332

<211> 345

<212> PRT

<213> Homo sapiens

<400> 4332

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Leu	Asp	Ile	Arg	Leu	Lys	Asp	Gly	Ser	Leu	Phe	Trp	Gln	Ser	Pro	Lys
			20					25					30		
Arg	Pro	Pro	Ser	Pro	Ile	Lys	Phe	Asp	Leu	Asn	Glu	Pro	Leu	His	Leu
			35				40					45			
Ser	Phe	Leu	Gln	Asn	Ala	Ala	Lys	Leu	Tyr	Ala	Thr	Val	Tyr	Cys	Ile

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65      70      75      80
Ser Glu Val Lys Ile Gln Glu Phe Lys Pro Ser Asn Lys Val Val Gln
      85      90      95
Thr Asp Glu Thr Ala Arg Lys Pro Asp His Val Pro Ile Ser Ser Glu
      100      105      110
Asp Glu Arg Asn Ala Ile Phe Gln Leu Glu Lys Ala Ile Leu Ser Asn
      115      120      125
Glu Ala Thr Lys Ser Asp Leu Gln Met Ala Val Leu Ser Phe Glu Lys
      130      135      140
Asp Asp Asp His Asn Gly His Ile Asp Phe Ile Thr Ala Ala Ser Asn
145      150      155      160
Leu Arg Ala Lys Met Tyr Ser Ile Glu Pro Ala Asp Arg Phe Lys Thr
      165      170      175
Lys Arg Ile Ala Gly Lys Ile Ile Pro Ala Ile Ala Thr Thr Thr Ala
      180      185      190
Thr Val Ser Gly Leu Val Ala Leu Glu Met Ile Lys Val Thr Gly Gly
      195      200      205
Tyr Pro Phe Glu Ala Tyr Lys Asn Cys Phe Leu Asn Leu Ala Ile Pro
      210      215      220
Ile Val Val Phe Thr Glu Thr Thr Glu Val Arg Lys Thr Lys Ile Arg
225      230      235      240
Asn Gly Ile Ser Phe Thr Ile Trp Asp Arg Trp Thr Val His Gly Lys
      245      250      255
Glu Asp Phe Thr Leu Leu Asp Phe Ile Asn Ala Val Lys Glu Lys Tyr
      260      265      270
Gly Ile Glu Pro Thr Met Val Val Gln Gly Val Lys Met Leu Tyr Val
      275      280      285
Pro Val Met Pro Gly His Ala Lys Arg Leu Lys Leu Thr Met His Lys
      290      295      300
Leu Val Lys Pro Thr Thr Glu Lys Lys Tyr Val Asp Leu Thr Val Ser
305      310      315      320
Phe Ala Pro Asp Ile Asp Gly Asp Glu Asp Leu Pro Gly Pro Pro Val
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Arg Tyr Tyr Phe Ser His Asp Thr Asp
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<210> 4333

<211> 1278

<212> DNA

<213> Homo sapiens

<400> 4333

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180
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240
gcctacttgg aagtgcacca gcaggagcaa gagaaactcc aggggcagat aagggagtcc
300

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<210> 4334

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4334

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Phe	Ala	Gly	Val	Leu	Gly	Ser	His	Glu	Arg	Gly	Pro	Arg	Ser	Phe	Pro
			20					25					30		
Val	Phe	Ser	Pro	Pro	Gly	Pro	Pro	Arg	Lys	Pro	Pro	Ala	Leu	Ser	Arg
		35				40						45			
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	50				55				60						
Pro	Glu	Arg	Leu	Asp	Leu	Val	Tyr	Thr	Ala	Leu	Lys	Arg	Gly	Leu	Thr
65				70					75					80	
Ala	Tyr	Leu	Glu	Val	His	Gln	Gln	Glu	Gln	Glu	Lys	Leu	Gln	Gly	Gln
			85				90						95		
Ile	Arg	Glu	Ser	Lys	Arg	Asn	Ser	Arg	Leu	Gly	Phe	Leu	Tyr	Asp	Leu

			100					105					110			
Asp	Lys	Gln	Val	Lys	Ser	Ile	Glu	Arg	Phe	Leu	Arg	Arg	Leu	Glu	Phe	
		115					120					125				
His	Ala	Ser	Lys	Ile	Asp	Glu	Leu	Tyr	Glu	Ala	Tyr	Cys	Val	Gln	Arg	
	130					135				140						
Arg	Leu	Arg	Asp	Gly	Ala	Tyr	Asn	Met	Val	Arg	Ala	Tyr	Thr	Thr	Gly	
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Ser	Pro	Gly	Ser	Arg	Glu	Ala	Arg	Asp	Ser	Leu	Ala	Glu	Ala	Thr	Arg	
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<210> 4335

<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4335

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<210> 4336
 <211> 325
 <212> PRT
 <213> Homo sapiens

<400> 4336
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 50 55 60
 Met Thr Glu Ser Gln Asn Leu Ser Thr His Leu Leu Ile Leu Tyr Gly
 65 70 75 80
 Val Gln Gly Leu Leu Thr Phe Gly Tyr Leu Val Leu Leu Ser His Val
 85 90 95
 Gly Glu Arg Met Ala Val Asp Met Arg Arg Ala Leu Phe Ser Ser Leu
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 Leu Arg Gln Asp Ile Thr Phe Phe Asp Ala Asn Lys Thr Gly Gln Leu
 115 120 125
 Val Ser Arg Leu Thr Thr Asp Val Gln Glu Phe Lys Ser Ser Phe Lys
 130 135 140
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 145 150 155 160
 Leu Val Ser Leu Ser Met Leu Ser Thr Arg Leu Thr Leu Leu Met
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 Val Ala Thr Pro Ala Leu Met Gly Val Gly Thr Leu Met Gly Ser Gly
 180 185 190
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 195 200 205
 Gly Val Ala Asp Glu Ala Leu Gly Asn Val Arg Thr Val Arg Ala Phe
 210 215 220
 Ala Met Glu Gln Arg Glu Glu Glu Arg Tyr Gly Ala Glu Leu Glu Ala
 225 230 235 240
 Cys Arg Cys Arg Ala Glu Glu Leu Gly Arg Gly Ile Ala Leu Phe Gln
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 Gly Leu Ser Asn Ile Ala Phe Asn Cys Met Val Leu Gly Thr Leu Phe
 260 265 270
 Ile Gly Gly Ser Leu Val Ala Gly Gln Gln Leu Thr Gly Gly Asp Leu
 275 280 285
 Met Ser Phe Leu Val Ala Ser Gln Thr Val Gln Ser Phe Leu Arg Val
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 Trp Lys Asp His Pro

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<210> 4337

<211> 461

<212> DNA

<213> Homo sapiens

<400> 4337

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<210> 4338

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4338

Met	Asn	Leu	Thr	Phe	Ser	Gln	Pro	Gly	Ser	Val	Cys	Ala	Thr	Trp	Glu
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			20					25					30		
Thr	Trp	Phe	Pro	Ser	Ser	Gly	Ala	His	Gly	Gly	Glu	Val	Glu	Gly	Gly
		35				40					45				
Arg	Arg	Glu	Gly	Ala	Thr	Cys	Cys	Ser	Val	Glu	Lys	Gln	Gln	Ser	Pro
	50					55				60					
Leu	Gln	Pro	Ala	Gln	Leu	Ala	Phe	Leu	Thr	Leu	Ser	Leu	Pro	Gly	Leu
65					70				75					80	
Cys	Gly	Arg	Glu	Gly	Gln	Ala	Arg	Trp	Pro	Ala	Arg	Asp	Val	Val	Phe
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Ser	Phe	Val	Leu	Cys	Thr	Met	Pro	Gln	Lys	Asn	Ile	Leu	Leu	Ile	Cys
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<210> 4339

<211> 5269

<212> DNA

<213> Homo sapiens

<400> 4339

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<210> 4340

<211> 1088

<212> PRT

<213> Homo sapiens

<400> 4340

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		20						25					30		
Gly	Pro	Glu	Pro	Glu	Arg	Pro	Ser	Pro	Gly	Asp	Gly	Asn	Pro	Arg	Glu
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Asn	Ser	Pro	Phe	Leu	Asn	Asn	Val	Glu	Val	Glu	Gln	Glu	Ser	Phe	Phe
	50					55				60					
Glu	Gly	Lys	Asn	Met	Ala	Leu	Phe	Glu	Glu	Glu	Met	Asp	Ser	Asn	Pro
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Met	Val	Ser	Ser	Leu	Leu	Asn	Lys	Leu	Ala	Asn	Tyr	Thr	Asn	Leu	Ser
			85						90					95	
Gln	Gly	Val	Val	Glu	His	Glu	Glu	Asp	Glu	Glu	Ser	Arg	Arg	Arg	Glu
			100					105					110		
Ala	Lys	Ala	Pro	Arg	Met	Gly	Thr	Phe	Ile	Gly	Val	Tyr	Leu	Pro	Cys
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Val	Gly	Val	Ala	Gly	Val	Leu	Glu	Ser	Phe	Leu	Ile	Val	Ala	Met	Cys
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Cys	Thr	Cys	Thr	Met	Leu	Thr	Ala	Ile	Ser	Met	Ser	Ala	Ile	Ala	Thr
			165					170					175		
Asn	Gly	Val	Val	Pro	Ala	Gly	Gly	Ser	Tyr	Tyr	Met	Ile	Ser	Arg	Ser
		180					185					190			
Leu	Gly	Pro	Glu	Phe	Gly	Gly	Ala	Val	Gly	Leu	Cys	Phe	Tyr	Leu	Gly
		195					200					205			
Thr	Thr	Phe	Ala	Gly	Ala	Met	Tyr	Ile	Leu	Gly	Thr	Ile	Glu	Ile	Phe
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Leu	Thr	Tyr	Ile	Ser	Pro	Gly	Ala	Ala	Ile	Phe	Gln	Ala	Glu	Ala	Ala
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Gly	Gly	Glu	Ala	Ala	Ala	Met	Leu	His	Asn	Met	Arg	Val	Tyr	Gly	Thr
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Asp Lys His Met Glu Ala Gln Arg Ala Glu Glu Asn Ile Arg Ser Leu		
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Ser Leu Arg Asp Gly Met Ser His Leu Ile Gln Ser Ala Gly Leu Gly		
	770	775
Gly Leu Lys His Asn Thr Val Leu Met Ala Trp Pro Ala Ser Trp Lys		
785	790	795
Gln Glu Asp Asn Pro Phe Ser Trp Lys Asn Phe Val Asp Thr Val Arg		
	805	810
Asp Thr Thr Ala Ala His Gln Ala Leu Leu Val Ala Lys Asn Val Asp		
	820	825
Ser Phe Pro Gln Asn Gln Glu Arg Phe Gly Gly Gly His Ile Asp Val		
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Trp Trp Ile Val His Asp Gly Gly Met Leu Met Leu Leu Pro Phe Leu		
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Leu Arg Gln His Lys Val Trp Arg Lys Cys Arg Met Arg Ile Phe Thr		
865	870	875
Val Ala Gln Val Asp Asp Asn Ser Ile Gln Met Lys Lys Asp Leu Gln		
	885	890
Met Phe Leu Tyr His Leu Arg Ile Ser Ala Glu Val Glu Val Val Glu		
	900	905
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	915	920
Met Glu Gln Arg Ser Gln Met Leu Lys Gln Met Gln Leu Ser Lys Asn		
	930	935
Glu Gln Glu Arg Glu Ala Gln Leu Ile His Asp Arg Asn Thr Ala Ser		
945	950	955
His Thr Ala Ala Ala Ala Arg Thr Gln Ala Pro Pro Thr Pro Asp Lys		
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Val Gln Met Thr Trp Thr Arg Glu Lys Leu Ile Ala Glu Lys Tyr Arg		
	980	985
Ser Arg Asp Thr Ser Leu Ser Gly Phe Lys Asp Leu Phe Ser Met Lys		
	995	1000
Pro Glu Trp Gly Asn Leu Asp Gln Ser Asn Val Arg Arg Met His Thr		
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Ala Val Lys Leu Asn Gly Val Val Leu Asn Lys Ser Gln Asp Ala Gln		
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Leu Val Leu Leu Asn Met Pro Gly Pro Pro Lys Asn Arg Gln Gly Asp		
	1045	1050
Glu Asn Tyr Met Glu Phe Leu Glu Val Leu Thr Glu Gly Leu Asn Arg		
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<210> 4341

<211> 693

<212> DNA

<213> Homo sapiens

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<210> 4342
 <211> 103
 <212> PRT
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<400> 4342
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 35 40 45
 Met Phe Ser Tyr Lys Tyr Ser Val Met Glu Lys His Ser Leu Asp Ala
 50 55 60
 Tyr Gly Ser Leu Arg Ser Phe Phe Phe His Pro Leu Phe Leu Glu Lys
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 Asn Ile Val Ala Phe Ser Ile
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<210> 4343
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 <212> DNA
 <213> Homo sapiens

<400> 4343

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 Glu Thr Thr Arg Leu Pro Gly Gly Gly Gln Asp Arg Pro Cys Pro Asp
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 Lys Met Glu Phe Pro Val Trp Leu Gln Leu Ala Ala Arg Ser Gln Ser
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<212> PRT

<213> Homo sapiens

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 Lys Lys Pro Gln Thr Leu Met Glu Leu His Gln Glu Lys Leu Lys Glu
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 Ser Asp Ser Asp Asp Glu Glu Lys Lys His Glu Lys Leu Lys Lys Ala
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 Leu Asn Ala Glu Glu Ala Arg Leu Leu His Val Lys Glu Thr Met Gln
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<211> 1741

<212> DNA

<213> Homo sapiens

<400> 4355

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<210> 4356

<211> 509

<212> PRT

<213> Homo sapiens

<400> 4356

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Arg Val Thr Pro Ala Val Val Ala Tyr Ser Glu Asn Glu Glu Ile Val	20	25	30
Gly Leu Ala Ala Lys Gln Ser Arg Ile Arg Asn Ile Ser Asn Thr Val	35	40	45
Met Lys Val Lys Gln Ile Leu Gly Arg Ser Ser Ser Asp Pro Gln Ala	50	55	60
Gln Lys Tyr Ile Ala Glu Ser Lys Cys Leu Val Ile Glu Lys Asn Gly	65	70	75
Lys Leu Arg Tyr Glu Ile Asp Thr Gly Glu Glu Thr Lys Phe Val Asn	85	90	95
Pro Glu Asp Val Ala Arg Leu Ile Phe Ser Lys Met Lys Glu Thr Ala	100	105	110
His Ser Val Leu Gly Ser Asp Ala Asn Asp Val Val Ile Thr Val Pro	115	120	125
Phe Asp Phe Gly Glu Lys Gln Lys Asn Ala Leu Gly Glu Ala Ala Arg	130	135	140
Ala Ala Gly Phe Asn Val Leu Arg Leu Ile His Glu Pro Ser Ala Ala	145	150	155
Leu Leu Ala Tyr Gly Ile Gly Gln Asp Ser Pro Thr Gly Lys Ser Asn	165	170	175
Ile Leu Val Phe Lys Leu Gly Gly Thr Ser Leu Ser Leu Ser Val Met	180	185	190
Glu Val Asn Ser Gly Ile Tyr Arg Val Leu Ser Thr Asn Thr Asp Asp	195	200	205
Asn Ile Gly Gly Ala His Phe Thr Glu Thr Leu Ala Gln Tyr Leu Ala	210	215	220
Ser Glu Phe Gln Arg Ser Phe Lys His Asp Val Arg Gly Asn Ala Arg	225	230	235
Ala Met Met Lys Leu Thr Asn Ser Ala Glu Val Ala Lys His Ser Leu	245	250	255
Ser Thr Leu Gly Ser Ala Asn Cys Phe Leu Asp Ser Leu Tyr Glu Gly	260	265	270
Gln Asp Phe Asp Cys Asn Val Ser Arg Ala Arg Phe Glu Leu Leu Cys	275	280	285
Ser Pro Leu Phe Asn Lys Cys Ile Glu Ala Ile Arg Gly Leu Leu Asp	290	295	300
Gln Asn Gly Phe Thr Ala Asp Asp Ile Asn Lys Val Val Leu Cys Gly	305	310	315
Gly Ser Ser Arg Ile Pro Lys Leu Gln Gln Leu Ile Lys Asp Leu Phe	325	330	335
Pro Ala Val Glu Leu Leu Asn Ser Ile Pro Pro Asp Glu Val Ile Pro	340	345	350
Ile Gly Ala Ala Ile Glu Ala Gly Ile Leu Ile Gly Lys Glu Asn Leu	355	360	365
Leu Val Glu Asp Ser Leu Met Ile Glu Cys Ser Ala Arg Asp Ile Leu	370	375	380
Val Lys Gly Val Asp Glu Ser Gly Ala Ser Arg Phe Thr Val Leu Phe	385	390	395
Pro Ser Gly Thr Pro Leu Pro Ala Arg Arg Gln His Thr Leu Gln Ala	405	410	415
Pro Gly Ser Ile Ser Ser Val Cys Leu Glu Leu Tyr Glu Ser Asp Gly	420	425	430

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<210> 4357
 <211> 421
 <212> DNA
 <213> Homo sapiens

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<210> 4358
 <211> 115
 <212> PRT
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Gln Lys Pro Trp Pro Ser Pro Ala Val Phe Phe Arg Arg Asn Val Arg
35     40     45
Gly Leu Pro Pro Arg Phe Ser Ser Pro Thr Pro Leu Trp Arg Lys Val
50     55     60
Leu Ser Thr Ala Val Val Gly Ala Pro Leu Leu Gly Ala Arg Tyr
65     70     75     80
Val Met Ala Glu Ala Arg Glu Lys Arg Arg Met Arg Leu Val Val Asp
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<210> 4359

<211> 3661

<212> DNA

<213> Homo sapiens

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<211> 670

<212> PRT

<213> Homo sapiens

<400> 4360

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 <211> 574
 <212> DNA
 <213> Homo sapiens

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<210> 4362
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 4362
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 Glu Val Tyr Ser Val Glu Phe Ser Tyr Asp Glu Asn Thr Val Tyr Ser
 50 55 60
 Ile Gly Glu Asp Gly Lys Val Gly Gly Ser Arg Ile Gln Ile Arg Glu
 65 70 75 80
 His Arg Asp Asp Met Trp Ala Gly Cys Arg Leu Trp Pro Tyr Leu Leu
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Ile Gly Ile Asn
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<211> 1222
<212> DNA
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 1222

<210> 4364

<211> 75
 <212> PRT
 <213> Homo sapiens

<400> 4364
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 20 25 30
 Phe Arg Gly Gln Leu Val Gln Pro Ala Gly Ser Val Gln Ile Pro Asp
 35 40 45
 Asn His Ser Ser Thr Arg Ala Gln Arg Pro Gly Pro Gly Gly Arg Ser
 50 55 60
 Ser Ala Cys Val Pro Thr Ser Thr Ser Met Arg
 65 70 75

<210> 4365
 <211> 469
 <212> DNA
 <213> Homo sapiens

<400> 4365
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 120
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 180
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 240
 cgcgagggcg acaagctggg ggcgggtgctg gagaacgaat acaccggcgc caaggaagag
 300
 cgggtgggtcg accaggtggg ggtggagaac ggtgtgcgtc cggatgagga aatctactac
 360
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 420
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 469

<210> 4366
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 4366
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 20 25 30
 Asp Lys Gly Ser Gln Val Glu Ile Val Thr Asp Asp Ile Lys Pro Gly
 35 40 45
 Val Ala Ile Gly Gly Thr Ser Phe Pro Thr Tyr Tyr Arg Ser Met Tyr
 50 55 60
 Pro Lys Glu Val Ile Met Thr Gly Asp Met Met Leu Glu Lys Val Tyr

65					70					75					80
Arg	Glu	Gly	Asp	Lys	Leu	Val	Ala	Val	Leu	Glu	Asn	Glu	Tyr	Thr	Gly
				85					90					95	
Ala	Lys	Glu	Glu	Arg	Val	Val	Asp	Gln	Val	Val	Val	Glu	Asn	Gly	Val
		100						105					110		
Arg	Pro	Asp	Glu	Glu	Ile	Tyr	Tyr	Gly	Leu	Lys	Glu	Gly	Ser	Arg	Asn
		115					120					125			
Lys	Gly	Gln	Ile	Asp	Val	Glu	Ala	Leu	Phe	Ala	Ile	Lys	Pro	Gln	Pro
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<210> 4367

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4367

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720
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<210> 4368

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4368

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 20 25 30
 Phe Glu Glu Thr Leu Asn Ile Leu Ile Tyr Glu Thr Pro Arg Gly Pro
 35 40 45
 Asp Pro Ala Leu Leu Glu Ala Thr Gly Gly Ala Ala Gly Ala Gly Gly
 50 55 60
 Ala Gly Arg Gly Glu Asp Glu Glu Asn Arg Glu His Arg Val Arg Arg
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 Ile His Val Arg Arg His Ile Thr His Asp Glu Arg Pro His Gly Gln
 85 90 95
 Gln Ile Val Phe Lys Asp
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<210> 4369

<211> 1264

<212> DNA

<213> Homo sapiens

<400> 4369

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 180
 gagaacaata aaaccttggg ctttatacctg tctactctct tagccattgg gaactttcta
 240
 aatggaacta atgccaaagc gtttgagtta agctacctcg agaaggttcc agaagtcaaa
 300
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 420
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 960

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 1020
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 1080
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 1140
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 tgcc
 1264

<210> 4370
 <211> 322
 <212> PRT
 <213> Homo sapiens

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 Trp Ala Phe Lys Met Asp Tyr Glu Thr Thr Glu Lys Glu Val Ala Glu
 35 40 45
 Pro Leu Leu Asp Leu Lys Glu Gly Ile Asp Gln Leu Glu Asn Asn Lys
 50 55 60
 Thr Leu Gly Phe Ile Leu Ser Thr Leu Leu Ala Ile Gly Asn Phe Leu
 65 70 75 80
 Asn Gly Thr Asn Ala Lys Ala Phe Glu Leu Ser Tyr Leu Glu Lys Val
 85 90 95
 Pro Glu Val Lys Asp Thr Val His Lys Gln Ser Leu Leu His His Val
 100 105 110
 Cys Thr Met Val Val Glu Asn Phe Pro Asp Ser Ser Asp Leu Tyr Ser
 115 120 125
 Glu Ile Gly Ala Ile Thr Arg Ser Ala Lys Val Asp Phe Asp Gln Leu
 130 135 140
 Gln Asp Asn Leu Cys Gln Met Glu Arg Arg Cys Lys Ala Ser Trp Asp
 145 150 155 160
 His Leu Lys Ala Ile Ala Lys His Glu Met Lys Pro Val Leu Lys Gln
 165 170 175
 Arg Met Ser Glu Phe Leu Lys Asp Cys Ala Glu Arg Ile Ile Ile Leu
 180 185 190
 Lys Ile Val His Arg Arg Ile Ile Asn Arg Phe His Ser Phe Leu Leu
 195 200 205
 Phe Met Gly His Pro Pro Tyr Ala Ile Arg Glu Val Asn Ile Asn Lys
 210 215 220
 Phe Cys Arg Ile Ile Ser Glu Phe Ala Leu Glu Tyr Arg Thr Thr Arg
 225 230 235 240
 Glu Arg Val Leu Gln Gln Lys Gln Lys Arg Ala Asn His Arg Glu Arg
 245 250 255
 Asn Lys Thr Arg Gly Lys Met Ile Thr Asp Ser Gly Lys Phe Ser Gly
 260 265 270
 Ser Ser Pro Ala Pro Pro Ser Gln Pro Gln Gly Leu Ser Tyr Ala Glu

	275		280		285										
Asp	Ala	Ala	Glu	His	Glu	Asn	Met	Lys	Ala	Val	Leu	Lys	Thr	Ser	Ser
	290				295					300					
Pro	Ser	Arg	Ser	Pro	Leu	His	Ile	Pro	Ser	Pro	Ser	Cys	Gln	Leu	Cys
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Phe	Ser														

<210> 4371
 <211> 907
 <212> DNA
 <213> Homo sapiens

<400> 4371
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 gtcgccaaagg tgcgggtcttt cgaccactcc ggaaaggaca cagaacgtga acatgagccg
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 300
 aatacctaca tcgaagcctg cctggacttc atcaaagacc atctcgtcaa cacagagacc
 360
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 907

<210> 4372
 <211> 302
 <212> PRT
 <213> Homo sapiens

<400> 4372
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Asn Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Gly Ser Leu
      35           40           45
Thr Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val
      50           55           60
Arg Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro
65           70           75           80
Pro Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe
      85           90           95
Ile Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Lys
      100          105          110
Asp His Leu Val Asn Thr Glu Thr Lys Val Ile Gln Ala Thr Gly Gly
      115          120          125
Gly Ala Tyr Lys Phe Lys Asp Leu Ile Glu Glu Lys Leu Arg Leu Lys
      130          135          140
Val Asp Lys Glu Asp Val Met Thr Cys Leu Ile Lys Gly Cys Asn Phe
145          150          155          160
Val Leu Lys Asn Ile Pro His Glu Ala Phe Val Tyr Gln Lys Asp Ser
      165          170          175
Asp Pro Glu Phe Arg Phe Gln Thr Asn His Pro His Ile Phe Pro Tyr
      180          185          190
Leu Leu Val Asn Ile Gly Ser Gly Val Ser Ile Val Lys Val Glu Thr
      195          200          205
Glu Asp Arg Phe Glu Trp Val Gly Gly Ser Ser Ile Gly Gly Gly Thr
      210          215          220
Phe Trp Gly Leu Gly Ala Leu Leu Thr Lys Thr Lys Lys Phe Asp Glu
225          230          235          240
Leu Leu His Leu Ala Ser Arg Gly Gln His Ser Asn Val Asp Met Leu
      245          250          255
Val Arg Asp Val Tyr Gly Gly Ala His Gln Thr Leu Gly Leu Ser Gly
      260          265          270
Asn Leu Ile Ala Ser Ser Phe Gly Lys Ser Ala Thr Ala Asp Gln Glu
      275          280          285
Phe Ser Lys Glu Asp Met Ala Lys Ser Leu Leu His Met Ile
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<210> 4373

<211> 1017

<212> DNA

<213> Homo sapiens

<400> 4373

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180
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240
tgtgcattgt tgggtgggatt ctgctcgtgt tccaaatcat cgcctttctg gtgggaggct
300

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 420
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 480
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 600
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 660
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<210> 4374

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4374

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			20					25					30		
Gly	Leu	Ile	Ala	Pro	Gly	Pro	Thr	Thr	Ala	Val	Ser	Tyr	Met	Ser	Val
		35					40					45			
Lys	Cys	Val	Asp	Ala	Arg	Lys	Asn	His	His	Lys	Thr	Lys	Trp	Phe	Val
	50					55				60					
Pro	Trp	Gly	Pro	Asn	His	Cys	Asp	Lys	Ile	Arg	Asp	Ile	Glu	Glu	Ala
65				70					75				80		
Ile	Pro	Arg	Glu	Ile	Glu	Ala	Asn	Asp	Ile	Val	Phe	Ser	Val	His	Ile
			85					90					95		
Pro	Leu	Pro	His	Met	Glu	Met	Ser	Pro	Trp	Phe	Gln	Phe	Met	Leu	Phe
		100						105					110		
Ile	Leu	Gln	Leu	Asp	Ile	Ala	Phe	Lys	Leu	Asn	Asn	Gln	Ile	Arg	Glu
		115				120						125			
Asn	Ala	Glu	Val	Ser	Met	Asp	Val	Ser	Leu	Ala	Tyr	Arg	Asp	Asp	Ala
	130					135					140				
Phe	Ala	Glu	Trp	Thr	Glu	Met	Ala	His	Glu	Arg	Val	Pro	Arg	Lys	Leu
145				150					155					160	
Lys	Cys	Thr	Phe	Thr	Ser	Pro	Lys	Thr	Pro	Glu	His	Glu	Gly	Arg	Tyr
			165					170					175		
Tyr	Glu	Cys	Asp	Val	Leu	Pro	Phe	Met	Glu	Ile	Gly	Ser	Val	Ala	His

			180					185					190			
Lys	Phe	Tyr	Leu	Leu	Asn	Ile	Arg	Leu	Pro	Val	Asn	Glu	Lys	Lys	Lys	
			195					200					205			
Ile	Asn	Val	Gly	Ile	Gly	Glu	Ile	Lys	Asp	Ile	Arg	Leu	Val	Gly	Ile	
			210					215					220			
His	Gln	Asn	Gly	Gly	Phe	Thr	Lys	Val	Trp	Phe	Ala	Met	Lys	Thr	Phe	
225					230					235					240	
Leu	Thr	Pro	Ser	Ile	Phe	Ile	Ile	Met	Val	Trp	Tyr	Trp	Arg	Arg	Ile	
				245					250					255		
Thr	Met	Met	Ser	Arg	Pro	Pro	Val	Leu	Leu	Glu	Lys	Val	Ile	Phe	Ala	
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<210> 4375
<211> 1966
<212> DNA
<213> Homo sapiens
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<400> 4375

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240	atgggcctgg	agaagctgca	tccctttgat	gccggaaaat	ggggcaaagt
300	ctaaaagaag	agaagcttct	gtctgacagc	atgctggtgg	aggcgcgga
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420	gttgctacca	tcacagaaat	cccccccggt	atcttcctcc	ccaacttctt
480	aagggtgctga	ggcccccttcg	gaccagaca	ggaggaacca	taatggcggg
540	gtggagcgag	gctgggccat	caacgtgggg	ggtggcttcc	accactgctc
600	ggcgggggct	tctgtgccta	tgcgacatc	acgtcgcca	tcaagtttct
660	gtggagggca	tctccagggc	taccatcatt	gatcttgatg	ccatcagggg
720	gagcgagact	tcattggacga	caagtgtgtg	acatgcatgg	atgtctacaa
780	taccaggggg	accgctttgc	caagcaggcc	atcaggcgga	aggtggagct
840	acagaggatg	atgagtacct	ggataagggtg	gagaggaaca	tcaagaaatc
900	cacctgcccg	acgtggtggt	atacaatgca	ggcaccgaca	tcctcgaggg
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1020	gtccgtggcc	gccgggtgcc	catccttatg	gtgacctcag	gcgggtacca
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 1966

<210> 4376

<211> 399

<212> PRT

<213> Homo sapiens

<400> 4376

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			20					25					30		
Val	Pro	His	Ser	Ser	Ser	Thr	Phe	Arg	Leu	Thr	Ala	Ser	Phe	Gly	Arg
		35					40					45			
Ala	Gly	Pro	Gly	Met	Leu	His	Thr	Thr	Gln	Leu	Tyr	Gln	His	Val	Pro
	50				55				60						
Glu	Thr	Arg	Trp	Pro	Ile	Val	Tyr	Ser	Pro	Arg	Tyr	Asn	Ile	Thr	Phe
65					70				75					80	
Met	Gly	Leu	Glu	Lys	Leu	His	Pro	Phe	Asp	Ala	Gly	Lys	Trp	Gly	Lys
				85				90					95		
Val	Ile	Asn	Phe	Leu	Lys	Glu	Glu	Lys	Leu	Leu	Ser	Asp	Ser	Met	Leu
			100					105					110		
Val	Glu	Ala	Arg	Glu	Ala	Ser	Glu	Glu	Asp	Leu	Leu	Val	Val	His	Thr
		115					120					125			
Arg	Arg	Tyr	Leu	Asn	Glu	Leu	Lys	Trp	Ser	Phe	Ala	Val	Ala	Thr	Ile

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      130              135              140
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Lys Val Leu Arg Pro Leu Arg Thr Gln Thr Gly Gly Thr Ile Met Ala
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Gly Lys Leu Ala Val Glu Arg Gly Trp Ala Ile Asn Val Gly Gly Gly
      180              185              190
Phe His His Cys Ser Ser Asp Arg Gly Gly Gly Phe Cys Ala Tyr Ala
      195              200              205
Asp Ile Thr Leu Ala Ile Lys Phe Leu Phe Glu Arg Val Glu Gly Ile
      210              215              220
Ser Arg Ala Thr Ile Ile Asp Leu Asp Ala His Gln Gly Asn Gly His
225              230              235              240
Glu Arg Asp Phe Met Asp Asp Lys Cys Val Thr Cys Met Asp Val Tyr
      245              250              255
Asn Arg His Ile Tyr Pro Gly Asp Arg Phe Ala Lys Gln Ala Ile Arg
      260              265              270
Arg Lys Val Glu Leu Glu Trp Gly Thr Glu Asp Asp Glu Tyr Leu Asp
      275              280              285
Lys Val Glu Arg Asn Ile Lys Lys Ser Leu Gln Glu His Leu Pro Asp
      290              295              300
Val Val Val Tyr Asn Ala Gly Thr Asp Ile Leu Glu Gly Asp Arg Leu
305              310              315              320
Gly Gly Leu Ser Ile Ser Pro Ala Gly Ile Val Lys Arg Asp Glu Leu
      325              330              335
Val Phe Arg Met Val Arg Gly Arg Arg Val Pro Ile Leu Met Val Thr
      340              345              350
Ser Gly Gly Tyr Gln Lys Arg Thr Ala Arg Ile Ile Ala Asp Ser Ile
      355              360              365
Leu Asn Leu Phe Gly Leu Gly Leu Ile Gly Pro Glu Ser Pro Ser Val
      370              375              380
Ser Ala Gln Asn Ser Asp Thr Pro Leu Leu Pro Pro Ala Val Pro
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<210> 4377

<211> 812

<212> DNA

<213> Homo sapiens

<400> 4377

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240
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300
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420

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<210> 4378

<211> 233

<212> PRT

<213> Homo sapiens

<400> 4378

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Leu	Leu	Pro	Pro	Glu	Asp	Ser	Arg	Leu	Trp	Gln	Tyr	Leu	Leu	Ser	Arg
			20					25					30		
Ser	Met	Arg	Glu	His	Pro	Ala	Leu	Arg	Ser	Leu	Arg	Leu	Leu	Thr	Leu
			35				40					45			
Glu	Gln	Pro	Gln	Gly	Asp	Ser	Met	Met	Thr	Cys	Glu	Gln	Ala	Gln	Leu
		50				55					60				
Leu	Ala	Asn	Leu	Ala	Arg	Leu	Ile	Gln	Ala	Lys	Lys	Ala	Leu	Asp	Leu
65					70				75					80	
Gly	Thr	Phe	Thr	Gly	Tyr	Ser	Ala	Leu	Ala	Leu	Ala	Leu	Ala	Leu	Pro
			85					90						95	
Ala	Asp	Gly	Arg	Val	Val	Thr	Cys	Glu	Val	Asp	Ala	Gln	Pro	Pro	Glu
			100					105					110		
Leu	Gly	Arg	Pro	Leu	Trp	Arg	Gln	Ala	Glu	Ala	Glu	His	Lys	Ile	Arg
			115				120					125			
Leu	Arg	Leu	Lys	Pro	Ala	Leu	Glu	Thr	Leu	Asp	Glu	Leu	Leu	Ala	Ala
			130			135					140				
Gly	Glu	Ala	Gly	Thr	Phe	Asp	Val	Ala	Val	Val	Asp	Ala	Asp	Lys	Glu
145					150				155						160
Asn	Cys	Ser	Ala	Tyr	Tyr	Glu	Arg	Cys	Leu	Gln	Leu	Leu	Arg	Pro	Gly
			165					170						175	
Gly	Ile	Leu	Ala	Val	Leu	Arg	Val	Leu	Trp	Arg	Gly	Lys	Val	Leu	Gln
			180					185					190		
Pro	Pro	Lys	Gly	Asp	Val	Ala	Ala	Glu	Cys	Val	Arg	Asn	Leu	Asn	Glu
			195				200					205			
Arg	Ile	Arg	Arg	Asp	Val	Arg	Val	Tyr	Ile	Ser	Leu	Leu	Pro	Leu	Gly
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<210> 4379

<211> 2347

<212> DNA

<213> Homo sapiens

<400> 4379

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180
agccggttcc cgcggggcgc acagctgcgg ggcgcgctgc ggacgctgag cctcctggcc
240
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720
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1020
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 1980
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<210> 4380

<211> 652

<212> PRT

<213> Homo sapiens

<400> 4380

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			20					25					30		
Arg	Gly	Ala	Leu	Arg	Thr	Leu	Ser	Leu	Leu	Ala	Ala	Gln	Gly	Leu	Trp
		35					40					45			
Ala	Gln	Thr	Ser	Val	Leu	His	Arg	Glu	Asp	Leu	Glu	Arg	Leu	Gly	Val
		50				55				60					
Gln	Glu	Ser	Asp	Leu	Arg	Leu	Phe	Leu	Asp	Gly	Asp	Ile	Leu	Arg	Gln
65					70				75					80	
Asp	Arg	Val	Ser	Lys	Gly	Cys	Tyr	Ser	Phe	Ile	His	Leu	Ser	Phe	Gln
				85				90					95		
Gln	Phe	Leu	Thr	Ala	Leu	Phe	Tyr	Thr	Leu	Glu	Lys	Glu	Glu	Glu	Glu
			100					105					110		
Asp	Arg	Asp	Gly	His	Thr	Trp	Asp	Ile	Gly	Asp	Val	Gln	Lys	Leu	Leu
		115					120					125			
Ser	Gly	Val	Glu	Arg	Leu	Arg	Asn	Pro	Asp	Leu	Ile	Gln	Ala	Gly	Tyr

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Tyr Ser Phe Gly Leu Ala Asn Glu Lys Arg Ala Lys Glu Leu Glu Ala				
145		150		155
Thr Phe Gly Cys Arg Met Ser Pro Asp Ile Lys Gln Glu Leu Leu Arg				160
	165		170	175
Cys Asp Ile Ser Cys Lys Gly Gly His Ser Thr Val Thr Asp Leu Gln				
	180		185	190
Glu Leu Leu Gly Cys Leu Tyr Glu Ser Gln Glu Glu Glu Leu Val Lys				
	195		200	205
Glu Val Met Ala Gln Phe Lys Glu Ile Ser Leu His Leu Asn Ala Val				
	210		215	220
Asp Val Val Pro Ser Ser Phe Cys Val Lys His Cys Arg Asn Leu Gln				
225		230		235
Lys Met Ser Leu Gln Val Ile Lys Glu Asn Leu Pro Glu Asn Val Thr				
	245		250	255
Ala Ser Glu Ser Asp Ala Glu Val Glu Arg Ser Gln Asp Asp Gln His				
	260		265	270
Met Leu Pro Phe Trp Thr Asp Leu Cys Ser Ile Phe Gly Ser Asn Lys				
	275		280	285
Asp Leu Met Gly Leu Ala Ile Asn Asp Ser Phe Leu Ser Ala Ser Leu				
	290		295	300
Val Arg Ile Leu Cys Glu Gln Ile Ala Ser Asp Thr Cys His Leu Gln				
305		310		315
Arg Val Val Phe Lys Asn Ile Ser Pro Ala Asp Ala His Arg Asn Leu				
	325		330	335
Xaa Pro Xaa Ala Leu Arg Gly His Lys Thr Val Thr Tyr Leu Thr Leu				
	340		345	350
Gln Gly Asn Asp Gln Asp Asp Met Phe Pro Ala Leu Cys Glu Val Leu				
	355		360	365
Arg His Pro Glu Cys Asn Leu Arg Tyr Leu Gly Leu Val Ser Cys Ser				
	370		375	380
Ala Thr Thr Gln Gln Trp Ala Asp Leu Ser Leu Ala Leu Glu Val Asn				
385		390		395
Gln Ser Leu Thr Cys Val Asn Leu Ser Asp Asn Glu Leu Leu Asp Glu				
	405		410	415
Gly Ala Lys Leu Leu Tyr Thr Thr Leu Arg His Pro Lys Cys Phe Leu				
	420		425	430
Gln Arg Leu Ser Leu Glu Asn Cys His Leu Thr Glu Ala Asn Cys Lys				
	435		440	445
Asp Leu Ala Ala Val Leu Val Val Ser Arg Glu Leu Thr His Leu Cys				
	450		455	460
Leu Ala Lys Asn Pro Ile Gly Asn Thr Gly Val Lys Phe Leu Cys Glu				
465		470		475
Gly Leu Arg Tyr Pro Glu Cys Lys Leu Gln Thr Leu Val Leu Trp Asn				
	485		490	495
Cys Asp Ile Thr Ser Asp Gly Cys Cys Asp Leu Thr Lys Leu Leu Gln				
	500		505	510
Glu Lys Ser Ser Leu Leu Cys Leu Asp Leu Gly Leu Asn His Ile Gly				
	515		520	525
Val Lys Gly Met Lys Phe Leu Cys Glu Ala Leu Arg Lys Pro Leu Cys				
	530		535	540
Asn Leu Arg Cys Leu Trp Leu Trp Gly Cys Ser Ile Pro Pro Phe Ser				
545		550		555
Cys Glu Asp Val Cys Ser Ala Leu Ser Cys Asn Gln Ser Leu Val Thr				560

				565					570					575						
Leu	Asp	Leu	Gly	Gln	Asn	Pro	Leu	Gly	Ser	Ser	Gly	Val	Lys	Met	Leu					
			580					585					590							
Phe	Glu	Thr	Leu	Thr	Cys	Ser	Ser	Gly	Thr	Leu	Arg	Thr	Leu	Arg	Leu					
		595					600					605								
Lys	Ile	Asp	Asp	Phe	Asn	Asp	Glu	Leu	Asn	Lys	Leu	Leu	Glu	Glu	Ile					
	610					615					620									
Glu	Glu	Lys	Asn	Pro	Gln	Leu	Ile	Ile	Asp	Thr	Glu	Lys	His	His	Pro					
625					630					635					640					
Trp	Glu	Glu	Arg	Pro	Ser	Ser	His	Asp	Phe	Met	Ile									
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<210> 4381

<211> 1638

<212> DNA

<213> Homo sapiens

<400> 4381

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240
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960
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1080

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 aagacagagg gttctcatga ttcacattgg ttgtgctatt gctgatgtta tgctttgggt
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<210> 4382

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4382

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Leu	Leu	Lys	Lys	Arg	Glu	Arg	Gln	Arg	Glu	Gln	Met	Glu	Val	Leu	Lys
		20					25					30			
Gln	Arg	Ile	Ala	Glu	Glu	Thr	Ile	Leu	Lys	Ser	Gln	Val	Asp	Lys	Arg
		35				40						45			
Phe	Ser	Ala	His	Tyr	Asp	Ala	Val	Glu	Ala	Glu	Leu	Lys	Ser	Ser	Ala
	50					55					60				
Val	Gly	Leu	Val	Thr	Leu	Asn	Asp	Met	Lys	Ala	Arg	Gln	Glu	Ala	Leu
65					70				75						80
Val	Arg	Glu	Arg	Glu	Arg	Gln	Leu	Ala	Lys	Arg	Gln	His	Leu	Glu	Glu
		85						90					95		
Gln	Arg	Leu	Gln	Gln	Glu	Arg	Gln	Arg	Glu	Gln	Glu	Gln	Arg	Arg	Glu
		100					105						110		
Arg	Lys	Arg	Lys	Ile	Ser	Cys	Leu	Ser	Phe	Ala	Leu	Asp	Asp	Leu	Asp
	115					120						125			
Asp	Gln	Ala	Asp	Ala	Ala	Glu	Ala	Arg	Arg	Ala	Gly	Asn	Leu	Gly	Lys
	130					135					140				
Asn	Pro	Asp	Val	Asp	Thr	Ser	Phe	Leu	Pro	Asp	Arg	Asp	Arg	Glu	Glu
145					150				155						160
Glu	Glu	Asn	Arg	Leu	Arg	Glu	Glu	Leu	Arg	Gln	Glu	Trp	Glu	Ala	Gln
		165						170					175		
Arg	Glu	Lys	Val	Lys	Asp	Glu	Glu	Met	Glu	Val	Thr	Phe	Ser	Tyr	Trp
		180						185					190		
Asp	Gly	Ser	Gly	His	Arg	Arg	Thr	Val	Arg	Val	Arg	Lys	Gly	Asn	Thr
	195						200					205			
Val	Gln	Gln	Phe	Leu	Lys	Lys	Ala	Leu	Gln	Gly	Leu	Arg	Lys	Asp	Phe

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Leu Glu Leu Arg Ser Ala Gly Val Glu Gln Leu Met Phe Ile Lys Glu
225              230              235              240
Asp Leu Ile Leu Pro His Tyr His Thr Phe Tyr Asp Phe Ile Ile Ala
      245              250              255
Arg Ala Arg Gly Lys Ser Gly Pro Leu Phe Ser Phe Asp Val His Asp
      260              265              270
Asp Val Arg Leu Leu Ser Asp Ala Thr Met Glu Lys Asp Glu Ser His
      275              280              285
Ala Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile
      290              295              300
Phe Pro Ala Ser Arg Trp Glu Ala Tyr Asp Pro Glu Lys Lys Trp Asp
305              310              315              320
Lys Tyr Thr Ile Arg
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<210> 4383
 <211> 419
 <212> DNA
 <213> Homo sapiens

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120
aaggagtccc agtatatcaa gtatctctgc tgtgatgaca caagaaccct taaccagtgg
180
gtcatgggaa tacggatagc caagtatggg aagactctct atgataacta ccagcgggct
240
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300
ccagctcagc catttacagg acctaaaaca ggcaccaccc agccaatgg acagattccc
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caggctacac atttcttcag tgctgttctc caagaagccc agagacatgc tgaaaactn
419

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<210> 4384
 <211> 139
 <212> PRT
 <213> Homo sapiens

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<400> 4384
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Gly Thr Gln His Lys Met Lys Tyr Lys Ala Pro Thr Asp Tyr Cys Phe
      20      25      30
Val Leu Lys His Pro Gln Ile Gln Lys Glu Ser Gln Tyr Ile Lys Tyr
      35      40      45
Leu Cys Cys Asp Asp Thr Arg Thr Leu Asn Gln Trp Val Met Gly Ile
      50      55      60
Arg Ile Ala Lys Tyr Gly Lys Thr Leu Tyr Asp Asn Tyr Gln Arg Ala
      65      70      75      80
Val Ala Lys Ala Gly Leu Ala Ser Arg Trp Thr Asn Leu Gly Thr Val

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<212> DNA
<213> Homo sapiens
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<212> PRT
<213> Homo sapiens
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3575

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      50              55              60
Ser Glu Cys Ser Pro Ser Ser Leu Arg Ser His Pro Pro Ala Leu Leu
65              70              75              80
Gln Ala Ala Glu Ser
      85

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<210> 4387
<211> 341
<212> DNA
<213> Homo sapiens
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120
ccccccgggn gggggggaag gggggggggg tttttccccc ctcccccccc ccctaataaaa
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aaaaccggga aaattttttt tccccccccc ccaaaaaaaaa aaaaaaaacc gggggggcccc
240
cctttttttg gggggggggg tttttttttt tttttttttt tttttttttt ttttttttac
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341
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<210> 4388
<211> 113
<212> PRT
<213> Homo sapiens
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[illegible]

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<210> 4389
<211> 1895
<212> DNA
<213> Homo sapiens
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<400> 4389

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<210> 4390

<211> 335

<212> PRT

<213> Homo sapiens

<400> 4390

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Ile	Arg	Ser	Ala	Leu	Phe	Glu	Asn	Arg	Ala	Pro	Pro	Pro	His	Gln	Ser
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Arg	Phe	Thr	Arg	Pro	Leu	Thr	Met	Ala	Glu	Leu	Ser	Arg	Leu	Arg	Arg

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<210> 4391

<211> 988

<212> DNA

<213> Homo sapiens

<400> 4391

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<210> 4392

<211> 211

<212> PRT

<213> Homo sapiens

<400> 4392

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Ala	Ser	Val	Gly	Pro	Gln	Ser	Tyr	Gly	Gly	Gly	Met	Arg	Pro	Pro	Pro
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Asn	Ser	Leu	Ala	Gly	Pro	Gly	Leu	Pro	Ala	Met	Asn	Met	Gly	Pro	Gly
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Val	Arg	Gly	Pro	Trp	Ala	Ser	Pro	Ser	Gly	Asn	Ser	Ile	Pro	Tyr	Ser
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Ser	Ser	Ser	Pro	Gly	Ser	Tyr	Thr	Gly	Pro	Pro	Gly	Gly	Gly	Gly	Pro
				85					90					95	
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			100					105					110		
Glu	Asn	Met	Tyr	Thr	Ile	Met	Asn	Pro	Ile	Gly	Gln	Gly	Ala	Gly	Arg
		115					120					125			
Ala	Asn	Phe	Pro	Leu	Gly	Pro	Gly	Pro	Glu	Gly	Pro	Met	Ala	Ala	Met
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Ser	Ala	Met	Glu	Pro	His	His	Val	Asn	Gly	Ser	Leu	Gly	Ser	Gly	Asp
145					150					155				160	
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Asn	Ala	Pro	Gly	Thr	Pro	Arg	Asp	Asp	Gly	Glu	Met	Ala	Ala	Ala	Gly
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<210> 4393

<211> 2171

<212> DNA

<213> Homo sapiens

<400> 4393

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180

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240

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300

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<210> 4394
 <211> 428
 <212> PRT
 <213> Homo sapiens

<400> 4394

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Glu Lys Leu Gln Arg Val Leu Glu Lys Ala Ala Leu Lys Leu Gly Arg
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Pro Thr Leu Ser Ser Glu Val Gly Ile Ile Ile Cys Asp Ile Ala Asn
65           70           75           80
Pro Ala Ser Leu Asp Glu Met Ala Lys Gln Ala Thr Val Val Leu Asn
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Cys Val Gly Pro Tyr Arg Phe Tyr Gly Glu Pro Val Ile Lys Ala Cys
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Ile Glu Asn Gly Ala Ser Cys Ile Asp Ile Ser Gly Glu Pro Gln Phe
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Leu Glu Leu Met Gln Leu Lys Tyr His Glu Lys Ala Ala Asp Lys Gly
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Val Tyr Ile Ile Gly Ser Ser Gly Phe Asp Ser Ile Pro Ala Asp Leu
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Gly Val Ile Tyr Thr Arg Asn Lys Met Asn Gly Thr Leu Thr Ala Val
          165          170          175
Glu Ser Phe Leu Thr Ile His Ser Gly Pro Glu Gly Leu Ser Ile His
          180          185          190
Asp Gly Thr Trp Lys Ser Ala Ile Tyr Gly Phe Gly Asp Gln Ser Asn
          195          200          205
Leu Arg Lys Leu Arg Asn Val Ser Asn Leu Lys Pro Val Pro Leu Ile
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Gly Pro Lys Leu Lys Arg Arg Trp Pro Ile Ser Tyr Cys Arg Glu Leu
225          230          235          240
Lys Gly Tyr Ser Ile Pro Phe Met Gly Ser Asp Val Ser Val Val Arg
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Arg Thr Gln Arg Tyr Leu Tyr Glu Asn Leu Glu Glu Ser Pro Val Gln
          260          265          270
Tyr Ala Ala Tyr Val Thr Val Gly Gly Ile Thr Ser Val Ile Lys Leu
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Met Phe Ala Gly Leu Phe Phe Leu Phe Phe Val Arg Phe Gly Ile Gly
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Arg Gln Leu Leu Ile Lys Phe Pro Trp Phe Phe Ser Phe Gly Tyr Phe
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Ser Lys Gln Gly Pro Thr Gln Lys Gln Ile Asp Ala Ala Ser Phe Thr
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Leu Thr Phe Phe Gly Gln Gly Tyr Ser Gln Gly Thr Gly Thr Asp Lys
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<210> 4395

<211> 1893

<212> DNA

<213> Homo sapiens

<400> 4395

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<210> 4396

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4396

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			20					25					30		
Ser	Gly	Asp	Leu	Pro	Gln	Ala	Ala	Ser	His	Leu	Gln	Glu	Leu	Leu	Ala
		35					40					45			
Ser	Thr	Glu	Ser	Ile	Arg	Leu	Glu	Val	Gly	Val	Thr	Gly	Glu	Ser	Gly
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Ala	Gly	Lys	Ser	Ser	Leu	Ile	Asn	Ala	Leu	Arg	Gly	Leu	Glu	Ala	Glu
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Asp	Pro	Gly	Ala	Ala	Leu	Thr	Gly	Val	Met	Glu	Thr	Thr	Met	Gln	Pro
			85					90						95	
Ser	Pro	Tyr	Pro	His	Pro	Gln	Phe	Pro	Asp	Val	Thr	Leu	Trp	Asp	Leu
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Pro	Gly	Ala	Gly	Ser	Pro	Gly	Cys	Pro	Ala	Asp	Lys	Tyr	Leu	Lys	Gln
		115					120					125			
Val	Asp	Phe	Ser	Arg	Tyr	Asp	Phe	Phe	Leu	Leu	Val	Ser	Pro	Arg	Arg
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Cys	Gly	Ala	Val	Glu	Thr	Arg	Leu	Ala	Ala	Glu	Ile	Leu	Cys	Gln	Gly
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Thr	Arg	Thr	Gln	Arg	Pro	Ser	Gly	Phe	Arg	Glu	Ala	Ala	Val	Leu	Gln

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Phe Pro Thr Leu Val Ser Thr Trp Glu His Asp Leu Pro Ser His Arg
      225      230      235      240
Arg His Ala Gly Leu Leu Ser Leu Pro Asp Ile Ser Leu Glu Ala Leu
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Gln Lys Lys Lys Ala Met Leu Gln Glu Gln Val Leu Lys Thr Ala Leu
      260      265      270
Val Leu Gly Val Ile Gln Ala Leu Pro Val Pro Gly Leu Ala Ala Ala
      275      280      285
Tyr Asp Asp Ala Leu Leu Ile His Ser Leu Arg Gly Tyr His Arg Ser
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Phe Gly Leu Asp Asp Asp Ser Leu Ala Lys Leu Ala Glu Gln Val Gly
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Lys Gln Ala Gly Asp Leu Arg Ser Val Ile Arg Ser Pro Leu Ala Asn
      325      330      335
Glu Val Ser Pro Glu Thr Val Leu Arg Leu Tyr Ser Gln Ser Ser Asp
      340      345      350
Gly Ala Met Arg Val Ala Arg Ala Phe Glu Arg Gly Ile Pro Val Phe
      355      360      365
Gly Thr Leu Val Ala Gly Gly Ile Ser Phe Gly Ala Val Tyr Thr Met
      370      375      380
Leu Gln Gly Cys Leu Asn Glu Met Ala Glu Asp Ala Gln Arg Val Arg
      385      390      395      400
Ile Lys Ala Leu Glu Asp Asp Glu Pro Gln Pro Glu Val Ser Leu Glu
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Val Ala Ser Asp Asn Gly Val Glu Lys Gly Gly Ser Gly Glu Gly Gly
      420      425      430
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<210> 4397

<211> 2543

<212> DNA

<213> Homo sapiens

<400> 4397

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<211> 354

<212> PRT

<213> Homo sapiens

<400> 4398

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Trp	Phe	Lys	Glu	Ser	Asp	Pro	Ser	Lys	Leu	Gln	Phe	Asn	Thr	Thr	Asn
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Gln	Arg	Cys	Gln	Gly	Thr	Asn	Gln	Arg	Gln	Pro	Tyr	Phe	Ile	Tyr	Phe
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Tyr	Ser	Tyr	Thr	Ile	Ile	Thr	Val	Asp	Ser	Cys	Lys	Gly	Leu	Ser	Asp
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Ile	His	His	Arg	Met	Pro	Ala	Ile	Leu	Asp	Gly	Glu	Glu	Ala	Val	Ser

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 Ile His Pro Thr Glu Asn Ile Thr Phe His Ala Val Ser Ser Val Val
 245 250 255
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 260 265 270
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 Gln Trp Leu Ala Thr Lys Ser Pro Lys Lys Glu Asp Ser Lys Thr Pro
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 <212> DNA
 <213> Homo sapiens

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Leu Gly Val Gln Ala Gly Gln Thr Gln Lys Leu Leu Leu Gln Lys Glu
      35           40           45
Ala Leu Asp Glu Gln Leu Val Gln Val Lys Glu Ala Glu Arg His His
      50           55           60
Ser Ser Pro Lys Arg Glu Leu Pro Pro Gly Ile Gly Asp Met Val Glu
65           70           75           80
Leu Met Gly Val Gln Asp Gln His Met Asp Glu Arg Asp Val Arg Arg
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Phe Gln Leu Lys Ile Ala Glu Leu Asn Ser Val Ile Arg Lys Leu Glu
      100          105          110
Asp Arg Asn Thr Leu Leu Ala Asp Glu Arg Asn Glu Leu Leu Lys Arg
      115          120          125
Ser Arg Glu Thr Glu Val Gln Leu Lys Pro Leu Val Glu Lys Asn Lys
      130          135          140
Arg Met Asn Lys Lys Asn Glu Asp Leu Leu Gln Ser Ile Gln Arg Met
      145          150          155          160
Glu Glu Lys Ile Lys Asn Leu Thr Arg Glu Asn Val Glu Met Lys Glu
      165          170          175
Lys Leu Ser Ala Gln Ala Ser Leu Lys Arg His Thr Ser Leu Asn Asp
      180          185          190
Leu Ser Leu Thr Arg Asp Glu Gln Glu Ile Glu Phe Leu Arg Leu Gln
      195          200          205
Val Leu Glu Gln Gln His Val Ile Asp Asp Leu Ser Leu Glu Arg Glu
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		20						25					30		
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Gln	Tyr	Gly	Arg	Trp	Ala	Val	Val	Ser	Gly	Ala	Thr	Asp	Gly	Ile	Gly
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Lys	Ala	Tyr	Ala	Glu	Glu	Leu	Ala	Ser	Arg	Gly	Leu	Asn	Ile	Ile	Leu
			85					90					95		
Ile	Ser	Arg	Asn	Glu	Glu	Lys	Leu	Gln	Val	Val	Ala	Lys	Asp	Ile	Ala
			100					105					110		
Asp	Thr	Tyr	Lys	Val	Glu	Thr	Asp	Ile	Ile	Val	Ala	Asp	Phe	Ser	Ser
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Gly	Arg	Glu	Ile	Tyr	Leu	Pro	Ile	Arg	Glu	Ala	Leu	Lys	Asp	Lys	Asp
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Val	Gly	Ile	Leu	Val	Asn	Asn	Val	Gly	Val	Phe	Tyr	Pro	Tyr	Pro	Gln

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Asn Ile Ala Ala Ser Leu Met Val His Val Val Leu Pro Gly Met						
	180		185		190	
Val Glu Arg Lys Lys Gly Ala Ile Val Thr Ile Ser Ser Gly Leu Leu						
	195		200		205	
Leu Gln Pro Thr Pro Gln Leu Ala Ala Phe Ser Ala Ser Lys Ala Tyr						
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Leu Asp His Phe Ser Arg Ala Leu Gln Tyr Glu Tyr Ala Ser Lys Gly						
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 Asn Asn His Gly Asn Phe Gln Gly Asp Ser Asn Phe Asn Arg Met Trp
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 Gln Pro Glu Trp Gly Met His Gln Gln Pro Pro His Pro Pro Pro Asp
 65 70 75 80
 Gln Pro Trp Met Pro Pro Thr Pro Gly Pro Met Asp Ile Val Pro Pro
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 Ser Glu Asp Ser Asn Ser Gln Asp Ser Gly Glu Phe Ala Pro Asp Asn
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 Arg His Ile Phe Asn Gln Asn Asn His Asn Phe Gly Gly Pro Pro Asp
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 145 150 155 160
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 Ile His Lys Glu Gln Asn Ser Leu Ser Leu Leu Glu Ala Arg Glu Ala
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 485 490 495
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 660 665 670
 Glu Lys Asp Phe Lys Phe Ser Ser Gln Asp Asp Arg Leu Lys Arg Lys
 675 680 685
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<210> 4405

<211> 918

<212> DNA

<213> Homo sapiens

<400> 4405

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<210> 4406

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4406

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20           25           30
Lys Glu Leu Tyr Asp His Ala Glu Ala Thr Ile Val Val Met Leu Val
35           40           45
Gly Asn Lys Ser Asp Leu Ser Gln Ala Arg Glu Val Pro Thr Glu Glu
50           55           60
Ala Arg Met Phe Ala Glu Asn Asn Gly Leu Leu Phe Leu Glu Thr Ser
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Ala Leu Asp Ser Thr Asn Val Glu Leu Ala Phe Glu Thr Val Leu Lys

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Glu Ile Phe	Ala Lys Val Ser Lys Gln Arg Gln Asn Ser Ile Arg Thr				
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<211> 974

<212> DNA

<213> Homo sapiens

<400> 4407

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<210> 4408

<211> 158

<212> PRT

<213> Homo sapiens

<400> 4408

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 Glu Ser Leu His Leu Phe Asn Ser Ile Cys Asn His Lys Tyr Phe Ser
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 Thr Thr Ser Ile Val Leu Phe Leu Asn Lys Lys Asp Ile Phe Gln Glu
 65 70 75 80
 Lys Val Thr Lys Val His Leu Ser Ile Cys Phe Pro Glu Tyr Thr Gly
 85 90 95
 Pro Asn Thr Phe Glu Asp Ala Gly Asn Tyr Ile Lys Asn Gln Phe Leu
 100 105 110
 Asp Leu Asn Leu Lys Lys Glu Asp Lys Glu Ile Tyr Ser His Met Thr
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<210> 4409

<211> 4217

<212> DNA

<213> Homo sapiens

<400> 4409

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<210> 4410

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4410

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			20					25				30			
Ser	His	Met	Ala	Thr	Arg	Ser	Arg	Glu	Asn	Ala	Arg	Arg	Arg	Gly	Thr
		35					40				45				
Pro	Glu	Pro	Glu	Glu	Ala	Gly	Arg	Arg	Gly	Gly	Lys	Arg	Pro	Lys	Pro
		50				55					60				
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Gly	Leu	Gly	Ala	Lys	Val	Lys	Leu	Glu	Glu	Lys	Gln	His	His	Pro	Cys
				85				90						95	
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			100				105					110			
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Arg	Phe	Leu	Leu	Glu	Ser	Glu	Leu	Leu	Leu	His	Arg	Gln	Thr	Asp	Cys
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Glu	Arg	Asn	Ile	Gln	Cys	Val	Thr	Cys	Gly	Lys	Ala	Phe	Lys	Lys	Leu
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Trp	Ser	Leu	His	Glu	His	Asn	Lys	Ile	Val	His	Gly	Tyr	Ala	Glu	Lys
			165					170						175	
Lys	Phe	Ser	Cys	Glu	Ile	Cys	Glu	Lys	Lys	Phe	Tyr	Thr	Met	Ala	His
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Ser	Leu	Gln	His	Ser	Gly	Glu	Lys	Pro	Phe	Arg	Cys	Glu	Asn	Cys	Asp
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		275				280						285			
Pro	Phe	Ile	Cys	Glu	Ile	Cys	Gly	Lys	Ser	Phe	Thr	Ser	Arg	Pro	Asn
		290				295					300				
Met	Lys	Arg	His	Arg	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Pro	Cys

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Lys Glu Lys Cys Phe Arg Val Ser His Thr Leu Ala Gly Asp Gly Val
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Pro Ala Ala Pro Gly Leu Pro Pro Thr Gln Pro Gln Ala His Ala Leu
          355          360          365
Pro Leu Leu Pro Gly Leu Pro Gln Thr Leu Pro Pro Pro Pro His Leu
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Pro Pro Pro Pro Pro Leu Phe Pro Thr Thr Ala Ser Pro Gly Gly Arg
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Met Asn Ala Asn Asn
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<210> 4411
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 <212> DNA
 <213> Homo sapiens

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<210> 4412
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Ala Gln Ala Val Cys Pro Leu Phe Ser Ser Trp Cys Pro Ala Pro Pro
35          40          45
Arg Cys His Leu Pro Gln Trp Gln Trp Gly Phe Ile Thr Gly Ser Ser
50          55          60
Gly Pro Leu Pro Met Ala Gly Gly Val Pro Gly Gly Pro Asn Gln Ala

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65					70					75				80
Ala	Pro	Ala	Ser	Arg	Gln	Arg	Val	Gly	Phe	Leu	Gly	Gln	Pro	Gln
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<210> 4413

<211> 1097

<212> DNA

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<210> 4414

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<212> PRT

<213> Homo sapiens

<400> 4414

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Met Ala Leu Leu Phe Ala Arg Ser Leu Arg Leu Cys Arg Trp Gly Ala
 1           5           10           15
Lys Arg Leu Gly Val Ala Ser Thr Glu Arg Gln Arg Gly Val Ser Phe
          20           25           30
Lys Leu Glu Glu Lys Thr Ala His Ser Ser Leu Ala Leu Phe Arg Asp
          35           40           45
Asp Thr Gly Val Lys Tyr Gly Leu Val Gly Leu Glu Pro Thr Lys Val
          50           55           60
Pro
65

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<210> 4415

<211> 775

<212> DNA

<213> Homo sapiens

<400> 4415

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attattgaat acacaaaagg aatgtttaccg ttacttgttc atagtcaaag gtgaagttaa
180
aaaaaaaggg aagttaaata actgaagtaa tggtttgccc aaatagcaaa cgtaggatac
240
aggcgtgggc aaagagcagc tactgaagct catgaggagg atgctggata tagggtaggt
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aacttgacaa atgcctctgc ttctttggaa ccttcttctt agatcacccc cacaaattcc
360
aaacctggct ctttcagagc acaacagcca aatgtaacta aactcctcat tacttctgtg
420
atatttggca acagaatgag atagttaa aaataatcaa tttcttgttg agacaagaca
480
tgtctgaatc catttctctt ggggtaggag gaggtaatga acattaacgt tctgcatctc
540
aatctcctaa aatggaattt aaccagatag atatcgcttg agattttaaa gcaggagata
600
ccataagtaa tgatactcca ggctgtaaa gcatttttca ttgtcccaca ttgcagctaa
660
atgagtataa actcgacagt gttctgattt cacaacatat gcatttatga caactgctaa
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aacaacttta caggctcaaa cgatagggtc caagggattt ttgtttttgc ttaag
775

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<210> 4416

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4416

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Met Lys Asn Ala Leu Gln Ala Trp Ser Ile Ile Thr Tyr Gly Ile Ser
 1           5           10           15
Cys Phe Lys Ile Ser Ser Asp Ile Tyr Leu Val Lys Phe His Phe Arg
      20           25           30
Arg Leu Arg Cys Arg Thr Leu Met Phe Ile Thr Ser Ser Tyr Pro Lys
      35           40           45
Arg Asn Gly Phe Arg His Val Leu Ser Gln Gln Glu Ile Asp Phe Phe
      50           55           60
Leu Asn Tyr Leu Ile Leu Leu Pro Asn Ile Thr Glu Val Met Arg Ser
65           70           75           80
Leu Val Thr Phe Gly Cys Cys Ala Leu Lys Glu Pro Gly Leu Glu Phe
      85           90           95
Val Gly Val Ile
      100

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<210> 4417

<211> 980

<212> DNA

<213> Homo sapiens

<400> 4417

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120
aagctgtaca gccagtatga ggagaagctg caggaagaac agaggaagca cagtgtctgag
180
aaggaggctc ttttggaaga aaccaatagt tttctgaaag cgattgaaga agccaataaa
240
aagatgcaag cagcagagat cagcctagag gagaaagacc agaggatcgg ggagctggac
300
aggctgattg agcgcattga aaaggaacgt catcaactgc aacttcaact cctagaacat
360
gaaacagaaa tgtctgggga gttaactgat tctgacaagg aaaggtatca gcagttggag
420
gaggcatcag ccagcctccg tgagcggatc agacacctag atgacatggt gcattgccag
480
cagaagaaag tcaagcagat ggttgaggag attgagtcac taaagaaaaa agtgcaacag
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600
gaactacaaa gcaggttgga ctatttgaca gaaacccagg ccaagactga agtggaacaa
660
agagaaattg gagtgggctg tgatcttctt ccagcccaa caggcaggac tcgtgaaatt
720
gtgatgcctt ctaggaacta caccacatac acaagagtcc tggagttatc ctcaaagaaa
780
acgctgactt aggcactcag aggcatacac tttttacaga tggacaaaag ctctggaacc
840
ctgtggcttc aaatcctttg ggaagggtga ctgttggttc ccctacacac agtgtaagcc
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960

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gtgagcaggt aagagaggga
980

<210> 4418
<211> 263
<212> PRT
<213> Homo sapiens

<400> 4418
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Asn Gln Leu Leu Lys Met Lys Val Glu Ser Ser Gln Glu Ala Asn Ala
20 25 30
Glu Val Met Arg Glu Met Thr Lys Lys Leu Tyr Ser Gln Tyr Glu Glu
35 40 45
Lys Leu Gln Glu Glu Gln Arg Lys His Ser Ala Glu Lys Glu Ala Leu
50 55 60
Leu Glu Glu Thr Asn Ser Phe Leu Lys Ala Ile Glu Glu Ala Asn Lys
65 70 75 80
Lys Met Gln Ala Ala Glu Ile Ser Leu Glu Glu Lys Asp Gln Arg Ile
85 90 95
Gly Glu Leu Asp Arg Leu Ile Glu Arg Met Glu Lys Glu Arg His Gln
100 105 110
Leu Gln Leu Gln Leu Leu Glu His Glu Thr Glu Met Ser Gly Glu Leu
115 120 125
Thr Asp Ser Asp Lys Glu Arg Tyr Gln Gln Leu Glu Glu Ala Ser Ala
130 135 140
Ser Leu Arg Glu Arg Ile Arg His Leu Asp Asp Met Val His Cys Gln
145 150 155 160
Gln Lys Lys Val Lys Gln Met Val Glu Glu Ile Glu Ser Leu Lys Lys
165 170 175
Lys Val Gln Gln Lys Gln Leu Leu Ile Leu Gln Leu Leu Glu Lys Ile
180 185 190
Ser Phe Leu Glu Gly Glu Asn Asn Glu Leu Gln Ser Arg Leu Asp Tyr
195 200 205
Leu Thr Glu Thr Gln Ala Lys Thr Glu Val Glu Thr Arg Glu Ile Gly
210 215 220
Val Gly Cys Asp Leu Leu Pro Ser Pro Thr Gly Arg Thr Arg Glu Ile
225 230 235 240
Val Met Pro Ser Arg Asn Tyr Thr Pro Tyr Thr Arg Val Leu Glu Leu
245 250 255
Ser Ser Lys Lys Thr Leu Thr
260

<210> 4419
<211> 369
<212> DNA
<213> Homo sapiens

<400> 4419
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120

cctccgcctc cccagctcaa gcaactctcc tgccccagcc acccaagtnn aaattacagg
 180
 cccgtgccac cacacccggc caattttctgt attttttagta gagacgggggt ttcaccatat
 240
 tggccaggac ggtctcaaac tcctggcccc atgtgatcct cccaccttgg cctcccaagg
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<210> 4420

<211> 91

<212> PRT

<213> Homo sapiens

<400> 4420

Xaa	Ile	Pro	Cys	Ile	Glu	Ser	Ala	Arg	Ile	His	Thr	Ile	Tyr	Tyr	Val
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Phe	Ile	Leu	Arg	Gln	Gly	Leu	Ala	Leu	Xaa	Thr	Gln	Ala	Gly	Val	Gln
			20					25					30		
Trp	Cys	Asp	Leu	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gln	Leu	Lys	Gln
		35					40					45			
Leu	Ser	Cys	Pro	Ser	His	Pro	Ser	Xaa	Asn	Tyr	Arg	Pro	Val	Pro	Pro
	50					55					60				
His	Pro	Ala	Asn	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Gly	Val	Ser	Pro	Tyr
65					70					75					80
Trp	Pro	Gly	Arg	Ser	Gln	Thr	Pro	Gly	Pro	Met					
				85					90						

<210> 4421

<211> 1356

<212> DNA

<213> Homo sapiens

<400> 4421

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 120
 ctgggggtgtg ctagagagag gaaagctgga ggaggagagc tgagctgggtg gttaccccat
 180
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 240
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 300
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 360
 aagcaaccac cagaggctga tacaaatggc cgctgtatctt ttgctaaagt gacagtgaca
 420
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 480
 aatggcagtc taacagaaaa tcatecttgt accaacagcc ccttccctcc caagttagggt
 540

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 1200
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 1260
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 1320
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 1356

<210> 4422
 <211> 58
 <212> PRT
 <213> Homo sapiens

<400> 4422
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 Thr Trp Gln Asn Pro Val Ser Thr Lys Asn Thr Lys Ile Cys Arg Ala
 35 40 45
 Trp Trp Gln Met Pro Val Ile Pro Ala Thr
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<210> 4423
 <211> 2673
 <212> DNA
 <213> Homo sapiens

<400> 4423
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 120

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 180
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<210> 4424

<211> 768

<212> PRT

<213> Homo sapiens

<400> 4424

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			20				25					30			
Ser	Gly	Asp	Glu	Glu	Glu	Glu	Gly	Pro	Ile	Val	Leu	Gly	Arg	Arg	Gln
		35					40				45				
Lys	Ala	Leu	Gly	Lys	Asn	Arg	Ser	Ala	Asp	Phe	Asn	Pro	Asp	Phe	Val
	50				55				60						
Phe	Thr	Glu	Lys	Glu	Gly	Thr	Tyr	Asp	Gly	Ser	Trp	Ala	Leu	Ala	Asp
65				70				75					80		
Val	Met	Ser	Gln	Leu	Lys	Lys	Lys	Arg	Ala	Ala	Thr	Thr	Leu	Asp	Glu
			85				90						95		
Lys	Ile	Glu	Lys	Val	Arg	Lys	Lys	Arg	Lys	Thr	Glu	Asp	Lys	Glu	Ala
	100						105						110		
Lys	Ser	Gly	Lys	Leu	Glu	Lys	Glu	Lys	Glu	Ala	Lys	Glu	Gly	Ser	Glu

115	120	125
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130	135	140
Asp Glu Ala Ser Glu Thr Asp Tyr Ser Ser Ala Asp Glu Asn Ile Leu		
145	150	155
Thr Lys Ala Asp Thr Leu Lys Val Lys Asp Arg Lys Lys Lys Lys Lys		
165	170	175
Lys Gly Gln Glu Ala Gly Gly Phe Phe Glu Asp Ala Ser Gln Tyr Asp		
180	185	190
Glu Asn Leu Ser Phe Gln Asp Met Asn Leu Ser Arg Pro Leu Leu Lys		
195	200	205
Ala Ile Thr Ala Met Gly Phe Lys Gln Pro Thr Pro Ile Gln Lys Ala		
210	215	220
Cys Ile Pro Val Gly Leu Leu Gly Lys Asp Ile Cys Ala Cys Ala Ala		
225	230	235
Thr Gly Thr Gly Lys Thr Ala Ala Phe Ala Leu Pro Val Leu Glu Arg		
245	250	255
Leu Ile Tyr Lys Pro Arg Gln Ala Pro Val Thr Arg Val Leu Val Leu		
260	265	270
Val Pro Thr Arg Glu Leu Gly Ile Gln Val His Ser Val Thr Arg Gln		
275	280	285
Leu Ala Gln Phe Cys Asn Ile Thr Thr Cys Leu Ala Val Gly Gly Leu		
290	295	300
Asp Val Lys Ser Gln Glu Ala Ala Leu Arg Ala Ala Pro Asp Ile Leu		
305	310	315
Ile Ala Thr Pro Gly Arg Leu Ile Asp His Leu His Asn Cys Pro Ser		
325	330	335
Phe His Leu Ser Ser Ile Glu Val Leu Ile Leu Asp Glu Ala Asp Arg		
340	345	350
Met Leu Asp Glu Tyr Phe Glu Glu Gln Met Lys Glu Ile Ile Arg Met		
355	360	365
Cys Ser His His Arg Gln Thr Met Leu Phe Ser Ala Thr Met Thr Asp		
370	375	380
Glu Val Lys Asp Leu Ala Ser Val Ser Leu Lys Asn Pro Val Arg Ile		
385	390	395
Phe Val Asn Ser Asn Thr Asp Val Ala Pro Phe Leu Arg Gln Glu Phe		
405	410	415
Ile Arg Ile Arg Pro Asn Arg Glu Gly Asp Arg Glu Ala Ile Val Ala		
420	425	430
Ala Leu Leu Thr Arg Thr Phe Thr Asp His Val Met Leu Phe Thr Gln		
435	440	445
Thr Lys Lys Gln Ala His Arg Met His Ile Leu Leu Gly Leu Met Gly		
450	455	460
Leu Gln Val Gly Glu Leu His Gly Asn Leu Ser Gln Thr Gln Arg Leu		
465	470	475
Glu Ala Leu Arg Arg Phe Lys Asp Glu Gln Ile Asp Ile Leu Val Ala		
485	490	495
Thr Asp Val Ala Ala Arg Gly Leu Asp Ile Glu Gly Val Lys Thr Val		
500	505	510
Ile Asn Phe Thr Met Pro Asn Thr Ile Lys His Tyr Val His Arg Val		
515	520	525
Gly Arg Thr Ala Arg Ala Gly Arg Ala Gly Arg Ser Val Ser Leu Val		
530	535	540
Gly Glu Asp Glu Arg Lys Met Leu Lys Glu Ile Val Lys Ala Ala Lys		

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545          550          555          560
Ala Pro Val Lys Ala Arg Ile Leu Pro Gln Asp Val Ile Leu Lys Phe
          565          570          575
Arg Asp Lys Ile Glu Lys Met Glu Lys Asp Val Tyr Ala Val Leu Gln
          580          585          590
Leu Glu Ala Glu Glu Lys Glu Met Gln Gln Ser Glu Ala Gln Ile Asn
          595          600          605
Thr Ala Lys Arg Leu Leu Glu Lys Gly Lys Glu Ala Val Val Gln Glu
          610          615          620
Pro Glu Arg Ser Trp Phe Gln Thr Lys Glu Glu Arg Lys Lys Glu Lys
625          630          635          640
Ile Ala Lys Ala Leu Gln Glu Phe Asp Leu Ala Leu Arg Gly Lys Lys
          645          650          655
Lys Arg Lys Lys Phe Met Lys Asp Ala Lys Lys Lys Gly Glu Met Thr
          660          665          670
Ala Glu Glu Arg Ser Gln Phe Glu Ile Leu Lys Ala Gln Met Phe Ala
          675          680          685
Glu Arg Leu Ala Lys Arg Asn Arg Arg Ala Lys Arg Ala Arg Ala Met
          690          695          700
Pro Glu Glu Glu Pro Val Arg Gly Pro Ala Lys Lys Gln Lys Gln Gly
705          710          715          720
Lys Lys Ser Val Phe Asp Glu Glu Leu Thr Asn Thr Ser Lys Lys Ala
          725          730          735
Leu Lys Gln Tyr Arg Ala Gly Pro Ser Phe Glu Glu Arg Lys Gln Leu
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<210> 4425

<211> 5199

<212> DNA

<213> Homo sapiens

<400> 4425

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<213> Homo sapiens

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Asn Asn Pro Thr Lys Glu Asp Leu Gly Lys Leu Gln Pro Leu Val Ala			
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Gly Gln Thr Ala Leu Pro Gln Ala Pro Val Asn Gly Leu Ala Lys Lys			
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Glu Leu Thr Arg Ala Asp Pro Glu Gln Arg His Val Pro Leu Arg Arg			
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Arg Ser Glu Trp Lys Trp Ala Ala Asp Arg Ala Ala Ile Val Ser Arg			

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 Gly Ala Leu Pro Gly Ala Gly Gly Thr Gln Arg Leu Pro Lys Met Val
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 Gly Val Pro Ala Ala Leu Asp Met Met Leu Thr Gly Arg Ser Ile Arg
 195 200 205
 Ala Asp Arg Ala Lys Lys Met Gly Leu Val Asp Gln Leu Val Glu Pro
 210 215 220
 Leu Gly Pro Gly Leu Lys Pro Pro Glu Glu Arg Thr Ile Glu Tyr Leu
 225 230 235 240
 Glu Glu Val Ala Ile Thr Phe Ala Lys Gly Leu Ala Asp Lys Lys Ile
 245 250 255
 Ser Pro Lys Arg Asp Lys Gly Leu Val Glu Lys Leu Thr Ala Tyr Ala
 260 265 270
 Met Thr Ile Pro Phe Val Arg Gln Gln Val Tyr Lys Lys Val Glu Glu
 275 280 285
 Lys Val Arg Lys Gln Thr Lys Gly Leu Tyr Pro Ala Pro Leu Lys Ile
 290 295 300
 Ile Asp Val Val Lys Thr Gly Ile Glu Gln Gly Ser Asp Ala Gly Tyr
 305 310 315 320
 Leu Cys Glu Ser Gln Lys Phe Gly Glu Leu Val Met Thr Lys Glu Ser
 325 330 335
 Lys Ala Leu Met Gly Leu Tyr His Gly Gln Val Leu Cys Lys Lys Asn
 340 345 350
 Lys Phe Gly Ala Pro Gln Lys Asp Val Lys His Leu Ala Ile Leu Gly
 355 360 365
 Ala Gly Leu Met Gly Ala Gly Ile Ala Gln Val Ser Val Asp Lys Gly
 370 375 380
 Leu Lys Thr Ile Leu Lys Asp Ala Thr Leu Thr Ala Leu Asp Arg Gly
 385 390 395 400
 Gln Gln Gln Val Phe Lys Gly Leu Asn Asp Lys Val Lys Lys Lys Ala
 405 410 415
 Leu Thr Ser Phe Glu Arg Asp Ser Ile Phe Ser Asn Leu Thr Gly Gln
 420 425 430
 Leu Asp Tyr Gln Gly Phe Glu Lys Ala Asp Met Val Ile Glu Ala Val
 435 440 445
 Phe Glu Asp Leu Ser Leu Lys His Arg Val Leu Lys Glu Val Glu Ala
 450 455 460
 Val Ile Pro Asp His Cys Ile Phe Ala Ser Asn Thr Ser Ala Leu Pro
 465 470 475 480
 Ile Ser Glu Ile Ala Ala Val Ser Lys Arg Pro Glu Lys Val Ile Gly
 485 490 495
 Met His Tyr Phe Ser Pro Val Asp Lys Met Gln Leu Leu Glu Ile Ile
 500 505 510
 Thr Thr Glu Lys Thr Ser Lys Asp Thr Ser Ala Ser Ala Val Ala Val
 515 520 525
 Gly Leu Lys Gln Gly Lys Val Ile Ile Val Val Lys Asp Gly Pro Gly
 530 535 540
 Phe Tyr Thr Thr Arg Cys Leu Ala Pro Met Met Ser Glu Val Ile Arg
 545 550 555 560
 Ile Leu Gln Glu Gly Val Asp Pro Lys Lys Leu Asp Ser Leu Thr Thr
 565 570 575
 Ser Phe Gly Phe Pro Val Gly Ala Ala Thr Leu Val Asp Glu Val Gly
 580 585 590
 Val Asp Val Ala Lys His Val Ala Glu Asp Leu Gly Lys Val Phe Gly

	595		600		605	
Glu	Arg	Phe	Gly	Gly	Gly	Asn
	610					615
Lys	Gly	Phe	Leu	Gly	Arg	Lys
	625					630
Glu	Gly	Val	Lys	Arg	Lys	Asp
						645
Ala	Ser	Leu	Lys	Leu	Pro	Pro
						660
Ile	Gln	Phe	Arg	Leu	Val	Thr
						675
Leu	Gln	Glu	Gly	Ile	Leu	Ala
						690
Val	Phe	Gly	Leu	Gly	Phe	Pro
						705
Val	Asp	Leu	Tyr	Gly	Ala	Gln
						725
Glu	Ala	Ala	Tyr	Gly	Lys	Gln
						740
His	Ala	Asn	Ser	Pro	Asn	Lys
						755
						600
						615
						630
						645
						660
						675
						690
						705
						720
						735
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<210> 4429
 <211> 981
 <212> DNA
 <213> Homo sapiens

<400> 4429
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 aatccaggca tcacttgccc ctgattttat ttcattttca cacactctgt ttaggagaca
 120
 ctgcttgctc caactggctc catctctccg ttaccgggtga ggcaggcaca gtgctgcagt
 180
 ggagaaatgg aagtaccag gctgacttgc tctcagccag acacgacctc ttctctgagg
 240
 aggggtgatgc caataaatgg aactccaata ggtaggcttc gctctgcctc tccacaagtg
 300
 aacacacgcc gtgagtccct aaatcgccag gctccgcagc ctgcagaaa gcctagtctc
 360
 cagacggtag gtatcccatt catcccttgg catcggaac caaagggagt gcagacagat
 420
 cccggtcgtg cactacattc ccaaacttg gcacgcacgc gaaggcttg ggcgccccgg
 480
 cgcgcccttc ctccgaggcc tccaccacc gcggactcac cactatgcga gctgaaccac
 540
 ctgggtgcga tgtgcagagg tagagcatcc gccagcgagg ttctgggagg cccggttacc
 600
 gcttcccgtt tttatggtng accgcgcgcg gtctcctggt aaccattgcc atgggcatag
 660
 gtggagtgcg acgcagacc tccgcgcgcg ggcgcacta ccacctgag gtgtccaaag
 720
 ccgccagcgt catcaaccag gccctgtcca tgctgaggt cagcatcgcg cacaccaacg
 780

acacgccctt ctctctctct ctctctctct ctctctctct ctccccgtc tnnccctccc
 840
 gagttctccg gctctcgcgg ccggcggggc cgggcggcga acgaacgagc gagcgaacga
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 960
 agggaagcgc gcggcggcgg c
 981

<210> 4430
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 4430
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 Leu Arg Arg Val Met Pro Ile Asn Gly Thr Pro Ile Gly Arg Leu Arg
 20 25 30
 Ser Ala Leu Pro Gln Val Asn Thr Arg Arg Glu Ser Leu Asn Arg Gln
 35 40 45
 Ala Pro Gln Pro Arg Arg Lys Pro Ser Phe Gln Thr Val Gly Ile Pro
 50 55 60
 Phe Ile Pro Trp His Arg Glu Pro Lys Gly Met Gln Thr Asp Pro Gly
 65 70 75 80
 Arg Ala Leu His Ser Gln Thr Leu Ala Arg Thr Arg Arg Leu Gly Ala
 85 90 95
 Pro Arg Arg Ala Leu Pro Pro Arg Pro Pro Pro Ala Asp Ser Pro
 100 105 110
 Leu Cys Glu Leu Asn His Leu Gly Ala Met Cys Arg Gly Arg Ala Ser
 115 120 125
 Ala Ser Glu Val Leu Gly Gly Pro Val Thr Ala Ser Arg Phe Tyr Gly
 130 135 140
 Xaa Pro Pro Pro Val Ser Trp
 145 150

<210> 4431
 <211> 507
 <212> DNA
 <213> Homo sapiens

<400> 4431
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 ctgggtgacc gacccatccc cgtcaccttc aagagggcca tcgcagcgct ctccttctgg
 120
 cagaaggtca ggctggcttg gggcctgtgc ttctgtcag accccatcag gtagggctgc
 180
 ccccgggacc ctggccggcc tgcagggtgg tctgtgggag gctccaggcc ctcctgtgca
 240
 ggtccaagcg cagccaatcc tcaactcaagg ccttccctgc cctttccttc cgccacaaat
 300
 cccaaacaaa cgtgctgtgg tccctgcccc gtgtccacag tgccagcccc accctcccag
 360

cccgttgccc atccctgcgg ggctgcagcc atccctctcc acagcaagga tgacgtggaa
 420
 cgctgcaagc agaaggccta ctggagcaga tgatggccga gatgattggc gagttcccag
 480
 acctgcaccg caccatcggt ttgggag
 507

<210> 4432
 <211> 57
 <212> PRT
 <213> Homo sapiens

<400> 4432
 Gly Gly Glu Phe Arg Glu Ala Phe Lys Glu Ala Ser Lys Val Pro Phe
 1 5 10 15
 Cys Lys Phe His Leu Gly Asp Arg Pro Ile Pro Val Thr Phe Lys Arg
 20 25 30
 Ala Ile Ala Ala Leu Ser Phe Trp Gln Lys Val Arg Leu Ala Trp Gly
 35 40 45
 Leu Cys Phe Leu Ser Asp Pro Ile Arg
 50 55

<210> 4433
 <211> 447
 <212> DNA
 <213> Homo sapiens

<400> 4433
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 gtgaccaaca tcaccaccgt cagcctctgg gaagaattct cctccagcga cctcgcagat
 120
 ctcgcgttcc tggacatgag ccagaaccag ttccagtacc tgccagacgg cttcctgagg
 180
 aaaatgcctt ccctctccca cctgaacctc caccagaatt gcctgatgac gcttcacatt
 240
 cgggagcacg agccccccgg agcgtcacc gagctggacc tgagccacaa ccagctgtcg
 300
 gagctgcacc tggctccggg gctggccagc tgctgggca gcctgcgctt gttcaacctg
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 agtccaacc agctcctggg cgtccccctt ggctcttcg ccaatgctag gaacatcact
 420
 acacttgaca tgagccacaa tcagatc
 447

<210> 4434
 <211> 149
 <212> PRT
 <213> Homo sapiens

<400> 4434
 Xaa Tyr Asn Thr Ser Ser Pro Arg Glu Met Val Ala Gln Phe Leu Leu
 1 5 10 15
 Val Asp Gly Asn Val Thr Asn Ile Thr Thr Val Ser Leu Trp Glu Glu

[illegible]

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<210> 4435
<211> 783
<212> DNA
<213> Homo sapiens
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120
gtggacctgc tcctgggagg cgacctgcgc taccatctgc agcagaatgt gcatttcaca
180
gaggggactg tgaaactcta catctgtgag ctggcactgg ccctggagta tcttcagagg
240
taccacatca tccacagaga catcaagcca gacaatatcc tgctggatga acacggacat
300
gttcacatta cagacttcaa catagcgacg gtagtgaaag gagcagaaag ggcttcctcc
360
atggctggca ccaagcccta catggctcca gaagtattcc aggtgtacat ggacagaggg
420
cccggatact cgtaccctgt cgactgggtg tccctgggca tcacagccta tgagctgctg
480
cggggctgga ggccgtacga aatccactcg gtcacgcca tcgatgaaat cctcaacatg
540
ttcaaggtgg agcgtgtcca ctactcctcc acgtggtgca aggggatggg ggccctgcta
600
aggaagctcc tgaccaagga tcctgagagc cgcgtgtcca gccttcatga catacagagc
660
gtgccctact tggccgacat gaactgggac gcggtgttca agaaggcact gatgcccggc
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780
cta
783

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<210> 4436

<211> 261
 <212> PRT
 <213> Homo sapiens

<400> 4436
 Xaa Ala Arg Asp Glu Val Arg Asn Val Phe Arg Glu Leu Gln Ile Met
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 Gln Gly Leu Glu His Pro Phe Val Val Asn Leu Trp Tyr Ser Phe Gln
 20 25 30
 Asp Glu Glu Asp Met Phe Met Val Val Asp Leu Leu Leu Gly Gly Asp
 35 40 45
 Leu Arg Tyr His Leu Gln Gln Asn Val His Phe Thr Glu Gly Thr Val
 50 55 60
 Lys Leu Tyr Ile Cys Glu Leu Ala Leu Ala Leu Glu Tyr Leu Gln Arg
 65 70 75 80
 Tyr His Ile Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp
 85 90 95
 Glu His Gly His Val His Ile Thr Asp Phe Asn Ile Ala Thr Val Val
 100 105 110
 Lys Gly Ala Glu Arg Ala Ser Ser Met Ala Gly Thr Lys Pro Tyr Met
 115 120 125
 Ala Pro Glu Val Phe Gln Val Tyr Met Asp Arg Gly Pro Gly Tyr Ser
 130 135 140
 Tyr Pro Val Asp Trp Trp Ser Leu Gly Ile Thr Ala Tyr Glu Leu Leu
 145 150 155 160
 Arg Gly Trp Arg Pro Tyr Glu Ile His Ser Val Thr Pro Ile Asp Glu
 165 170 175
 Ile Leu Asn Met Phe Lys Val Glu Arg Val His Tyr Ser Ser Thr Trp
 180 185 190
 Cys Lys Gly Met Val Ala Leu Leu Arg Lys Leu Leu Thr Lys Asp Pro
 195 200 205
 Glu Ser Arg Val Ser Ser Leu His Asp Ile Gln Ser Val Pro Tyr Leu
 210 215 220
 Ala Asp Met Asn Trp Asp Ala Val Phe Lys Lys Ala Leu Met Pro Gly
 225 230 235 240
 Phe Val Pro Asn Lys Gly Arg Leu Asn Cys Asp Pro Thr Phe Glu Leu
 245 250 255
 Glu Glu Met Ile Leu
 260

<210> 4437
 <211> 620
 <212> DNA
 <213> Homo sapiens

<400> 4437
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 gtgaagacca tccgggaggt gcagcctgac gtggtggtcg tggagctctg ccaatatcgt
 120
 gtgtccatgc tgaagatgga cgagagcacg ctgctgcggg agggccagga gctcagcctg
 180
 gagaagctgc agcaggccgt gaggcagaac gggctcatgt cggggctgat gcagatgctg
 240

ctgctgaagg tgtctgcaca catcaccgag cagctgggca tggccccagg tggcgagttc
 300
 agggaggcct tcaaggaggc cagcaagggtg cctttctgca agttccacct gggtgaccga
 360
 cccatccccg tcaccttcaa gagggccatc gcagcgctct ccttctggca gaaggtcagg
 420
 ctggcttggg gcctgtgctt cctgtcagac cccatcagca aggatgacgt ggaacgctgc
 480
 aagcagaagg acctactgga gcagatgatg gccgagatga ttggcgagtt cccagacctg
 540
 caccgcacca tcgtctcgga gcgcgacgtc tacctaacct acatgctgcg ccaggccgcg
 600
 cggcgcctcg agctgcctcg
 620

<210> 4438
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 4438
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 Lys Arg Asp Val Val Lys Thr Ile Arg Glu Val Gln Pro Asp Val Val
 20 25 30
 Val Val Glu Leu Cys Gln Tyr Arg Val Ser Met Leu Lys Met Asp Glu
 35 40 45
 Ser Thr Leu Leu Arg Glu Ala Gln Glu Leu Ser Leu Glu Lys Leu Gln
 50 55 60
 Gln Ala Val Arg Gln Asn Gly Leu Met Ser Gly Leu Met Gln Met Leu
 65 70 75 80
 Leu Leu Lys Val Ser Ala His Ile Thr Glu Gln Leu Gly Met Ala Pro
 85 90 95
 Gly Gly Glu Phe Arg Glu Ala Phe Lys Glu Ala Ser Lys Val Pro Phe
 100 105 110
 Cys Lys Phe His Leu Gly Asp Arg Pro Ile Pro Val Thr Phe Lys Arg
 115 120 125
 Ala Ile Ala Ala Leu Ser Phe Trp Gln Lys Val Arg Leu Ala Trp Gly
 130 135 140
 Leu Cys Phe Leu Ser Asp Pro Ile Ser Lys Asp Asp Val Glu Arg Cys
 145 150 155 160
 Lys Gln Lys Asp Leu Leu Glu Gln Met Met Ala Glu Met Ile Gly Glu
 165 170 175
 Phe Pro Asp Leu His Arg Thr Ile Val Ser Glu Arg Asp Val Tyr Leu
 180 185 190
 Thr Tyr Met Leu Arg Gln Ala Ala Arg Arg Leu Glu Leu Pro
 195 200 205

<210> 4439
 <211> 2121
 <212> DNA
 <213> Homo sapiens

<400> 4439

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120
tctaaaatta actttttattg ttagagacac atcttttagaa aagtttgtaa atatcaacat
180
ttaccatctt attttttcct ttgagaccaa gcatcacaga ccaaaagcca caaagtttac
240
aataatttat tattgttgca tgacatttgc cagtaaaata aattatagaa actatagagt
300
ctttataaac tattttgtat atcatattca cttcctaatag cttactgcag taactgtatg
360
aaatttaatt agattacgtt ttagcattag tcagaagatt taaaaaatat gtaaaatgtt
420
ttcacagtac tttggattta taaaagaccc cattatttta acttttgtgc aacctgtttg
480
aatgtataa aaaacctttt acaaaccaaa aggtggcgta aggttttact gagttgctga
540
agacatctta ctttcttgaa tttctactta acatccatgt ggtgcacttt ttcaggcatt
600
gtaataagtg caaataaata atcaattatt gatttctaaa aatctatacc aatagacaat
660
actcaggctt ggaaatattt tgaacactca gatataaaaa ttcagtaaac aatttatgca
720
tggtattttc tctccctgtc ctccctctcc ctccctcctt cccctatcta tttggttaaa
780
aaaaaaaaag ttcaacttcg atttaagtcc tagggcctga caaagtgacc ctggataaat
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900
gcatcaatcc tttcctgcag ggacggaaga gttttcaaat ccttgctgaa agcattttgt
960
tctcctctgt aacagcacag ggcatgaaat tgtttgaggt ctttgtaacc agtctgttca
1020
gtcctgggtc ctttccagtc ccggtccctt tccagcctct ggagtcctga cagaagagaa
1080
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1140
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gaatatttcc gcagtttcag aaactggaaa agcttgtctt ttgtcctctt cttcaaggcc
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1380
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1560
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1620

cagccagttc cagaacaacc actataccca caaccatacc aaccacaata ccaacaatat
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 1740
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 1860
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 1920
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 1980
 aagcacattt tccaatacct gtggcatcac actactacca ctttttgaag aatcatcaaa
 2040
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 2100
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 2121

<210> 4440

<211> 82

<212> PRT

<213> Homo sapiens

<400> 4440

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Leu	Arg	Phe	Ala	Phe	Ile	Asp	Val	Gly	Ile	Phe	Arg	Asn	Ser	Ala	Pro
		20						25				30			
Arg	Leu	Ser	Met	Ile	Gly	Ala	Asp	Ser	Ser	Glu	Glu	Lys	Phe	Leu	Arg
	35						40					45			
Arg	Ile	Gly	Arg	Phe	Gly	Tyr	Gly	Tyr	Gly	Pro	Tyr	Gln	Pro	Val	Pro
	50					55				60					
Glu	Gln	Pro	Leu	Tyr	Pro	Gln	Pro	Tyr	Gln	Pro	Gln	Tyr	Gln	Gln	Tyr
65					70					75					80
Thr	Phe														

<210> 4441

<211> 2055

<212> DNA

<213> Homo sapiens

<400> 4441

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 180
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 240
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aaggagaagg tgctgtgggc cctgctggca gtgctcctgg cgtcgtggag gctgtgggag
360
atcaaggatt tccaggaatg cacctggcag gttgtcctga acgagtttaa gagggtaggc
420
gagagtgggtg tgagcgacag cttctttgag caagagcccg tggacacagt gagcagcttg
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720
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1020
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1140
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1380
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1620
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1800
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1860
atcggggcac ccagggagg ctgaccccag ctacactggc cctgccttcc ccctgcagct
1920

ggtgtacctt atgaacaacc agaagggcca gctgggtcaag aggctcgtgc ccgtggagca
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 gcttctgatg tatcaacagc acaccagcca ctatgacttg gagcggaag ggtgagaaga
 2040
 caccggacca tgaca
 2055

<210> 4442
 <211> 517
 <212> PRT
 <213> Homo sapiens

<400> 4442
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 Gly Lys Val Arg Leu Lys Lys Val Pro Ala Lys Lys Leu Val Pro Ala
 20 25 30
 Trp Lys Glu Lys Val Leu Trp Ala Leu Leu Ala Val Leu Leu Ala Ser
 35 40 45
 Trp Arg Leu Trp Ala Ile Lys Asp Phe Gln Glu Cys Thr Trp Gln Val
 50 55 60
 Val Leu Asn Glu Phe Lys Arg Val Gly Glu Ser Gly Val Ser Asp Ser
 65 70 75 80
 Phe Phe Glu Gln Glu Pro Val Asp Thr Val Ser Ser Leu Phe His Met
 85 90 95
 Leu Val Asp Ser Pro Ile Asp Pro Ser Glu Lys Tyr Leu Gly Phe Pro
 100 105 110
 Tyr Tyr Leu Lys Ile Asn Tyr Ser Cys Glu Glu Lys Pro Ser Glu Asp
 115 120 125
 Leu Val Arg Met Gly His Leu Thr Gly Leu Lys Pro Leu Val Leu Val
 130 135 140
 Thr Phe Gln Ser Pro Val Asn Phe Tyr Arg Trp Lys Ile Glu Gln Leu
 145 150 155 160
 Gln Ile Gln Met Glu Ala Ala Pro Phe Arg Ser Lys Gly Gly Pro Gly
 165 170 175
 Gly Gly Gly Arg Asp Arg Asn Leu Ala Gly Met Asn Ile Asn Gly Phe
 180 185 190
 Leu Lys Arg Asp Arg Asp Asn Asn Ile Gln Phe Thr Val Gly Glu Glu
 195 200 205
 Leu Phe Asn Leu Met Pro Gln Tyr Phe Val Gly Val Ser Ser Arg Pro
 210 215 220
 Leu Trp His Thr Val Asp Gln Ser Pro Val Leu Ile Leu Gly Gly Ile
 225 230 235 240
 Pro Asn Glu Lys Tyr Val Leu Met Thr Asp Thr Ser Phe Lys Asp Phe
 245 250 255
 Ser Leu Val Glu Val Asn Gly Val Gly Gln Met Leu Ser Ile Asp Ser
 260 265 270
 Cys Trp Val Gly Ser Phe Tyr Cys Pro His Ser Gly Phe Thr Ala Thr
 275 280 285
 Ile Tyr Asp Thr Ile Ala Thr Glu Ser Thr Leu Phe Ile Arg Gln Asn
 290 295 300
 Gln Leu Val Tyr Tyr Phe Thr Gly Thr Tyr Thr Thr Leu Tyr Glu Arg
 305 310 315 320
 Asn Arg Gly Ser Gly Glu Cys Ala Val Ala Gly Pro Thr Pro Gly Glu

325 330 335
 Gly Thr Leu Val Asn Pro Ser Thr Glu Gly Ser Trp Ile Arg Val Leu
 340 345 350
 Ala Ser Glu Cys Ile Lys Lys Leu Cys Pro Val Tyr Phe His Ser Asn
 355 360 365
 Gly Ser Glu Tyr Ile Met Ala Leu Thr Thr Gly Lys His Glu Gly Tyr
 370 375 380
 Val His Phe Gly Thr Ile Arg Val Thr Thr Cys Ser Ile Ile Trp Ser
 385 390 395 400
 Glu Tyr Ile Ala Gly Glu Tyr Thr Leu Leu Leu Leu Val Glu Ser Gly
 405 410 415
 Tyr Gly Asn Ala Ser Lys Arg Phe Gln Val Val Ser Tyr Asn Thr Ala
 420 425 430
 Ser Asp Asp Leu Glu Leu Leu Tyr His Ile Pro Glu Phe Ile Pro Glu
 435 440 445
 Ala Arg Gly Leu Glu Phe Leu Met Ile Leu Gly Thr Glu Ser Tyr Thr
 450 455 460
 Ser Thr Ala Met Ala Pro Lys Gly Ile Phe Cys Asn Pro Tyr Asn Asn
 465 470 475 480
 Leu Ile Phe Ile Trp Gly Asn Phe Leu Leu Gln Arg Ser Gly Thr Ser
 485 490 495
 Trp Arg Ala Ala Thr Gly Ser Thr Ser Cys Ser Leu Pro Arg Ala Gly
 500 505 510
 Arg Cys Thr Ser Ala
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<210> 4443

<211> 692

<212> DNA

<213> Homo sapiens

<400> 4443

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 240
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 300
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 360
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 420
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692

<210> 4444
<211> 108
<212> PRT
<213> Homo sapiens

<400> 4444
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Cys Glu Ala Ser Cys Lys Leu Asp Ser Leu Pro Ser Ala Pro Ser Pro
35 40 45
Lys Ala Gly Leu Gln Glu Val Arg Pro Ala Leu Gln Ala Thr Pro Val
50 55 60
Leu Gly Leu Leu Leu Ser Ser Ser Phe Leu Arg Val Thr Glu Pro Gly
65 70 75 80
Arg Glu Val Gly Cys Gly Leu Pro Cys Pro Tyr Ser His Leu Leu Gln
85 90 95
Leu Pro Pro Cys Trp Thr His Gln Gln Gln Ser Lys
100 105

<210> 4445
<211> 901
<212> DNA
<213> Homo sapiens

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120
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180
ccctggcctt ccctcatcag ccgtaaatga tgatttactg ctgttaccat catcactgcc
240
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300
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360
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420
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720

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 780
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 900
 a
 901

<210> 4446
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4446
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 20 25 30
 Pro Gln Glu Cys Pro Asp Pro His Ser Tyr Pro Gly Pro Arg Ser Pro
 35 40 45
 Thr Pro Gly Leu Pro Ser Ser Ala Val Asn Asp Asp Leu Leu Leu Leu
 50 55 60
 Pro Ser Ser Leu Pro Ser Val Thr Lys Gly Leu Pro Arg Cys Gln Leu
 65 70 75 80
 Trp Asn Glu Gly Cys Pro Trp Glu Val Met Ile Leu Arg Tyr Thr Gly
 85 90 95
 Ala Gln Gln Ile Ala Ser Ser Tyr Pro Gln Thr Val Phe Ala Cys Met
 100 105 110
 Gln Pro Leu Ala Leu Pro Leu Cys Gly Arg Lys Pro Ala Gln Gly His
 115 120 125
 Thr Ala Gly Gln Gln Gln His Ser Trp Ser Gln Ile
 130 135 140

<210> 4447
 <211> 951
 <212> DNA
 <213> Homo sapiens

<400> 4447
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 840
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<210> 4448

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4448

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			20					25					30		
Asp	Arg	Gly	Pro	Trp	Arg	Val	Gly	Val	Val	Gly	Tyr	Gly	Arg	Leu	Gly
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Gln	Ser	Leu	Val	Ser	Arg	Leu	Leu	Ala	Gln	Gly	Ser	Glu	Leu	Gly	Leu
		50					55					60			
Glu	Leu	Val	Phe	Val	Trp	Asn	Arg	Asp	Pro	Gly	Arg	Met	Ala	Gly	Ser
65					70					75				80	
Val	Pro	Pro	Ala	Leu	Gln	Leu	Glu	Asp	Leu	Thr	Thr	Leu	Glu	Glu	Arg
				85					90					95	
His	Pro	Asp	Leu	Val	Val	Glu	Val	Ala	His	Pro	Lys	Ile	Ile	His	Glu
			100					105					110		
Ser	Gly	Val	Gln	Ile	Leu	Arg	His	Ala	Asn	Leu	Leu	Ser	Leu	Arg	Val
		115					120					125			
Thr	Met	Ala	Thr	His	Pro	Asp	Gly	Phe	Arg	Leu	Glu	Gly	Pro	Leu	Ala
		130					135					140			
Ala	Ala	His	Ser	Pro	Gly	Pro	Cys	Thr	Val	Leu	Tyr	Glu	Gly	Pro	Val
145					150					155				160	
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			165						170					175	
Ala	Ala	Leu	Ala	Ala	Pro	Ser	Leu	Gly	Phe	Asp	Gly	Val	Ile	Gly	Val
			180					185					190		
Leu	Val	Ala	Asp	Thr	Ser	Leu	Thr	Asp	Met	His	Val	Val	Asp	Val	Glu
		195					200						205		
Leu	Ser	Gly	Pro	Arg	Gly	Pro	Thr	Gly	Arg	Ser	Phe	Ala	Val	His	Thr
		210				215						220			
Arg	Arg	Glu	Asn	Pro	Ala	Glu	Pro	Gly	Ala	Val	Thr	Gly	Ser	Ala	Thr

225		230		235		240									
Val	Thr	Ala	Phe	Trp	Arg	Ser	Leu	Leu	Ala	Cys	Cys	Gln	Leu	Pro	Ser
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<210> 4449

<211> 1365

<212> DNA

<213> Homo sapiens

<400> 4449

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240
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1140
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1200
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1260

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aactccacag ttcttgagc tgattctatt cctgatcctg aactaagtgg agaattcttg
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 1365

<210> 4450
 <211> 194
 <212> PRT
 <213> Homo sapiens

<400> 4450
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 20 25 30
 Gly Pro Gln Asn Arg Tyr Ala Leu Ile Cys Gln Gln Cys Phe Ser His
 35 40 45
 Asn Gly Met Ala Leu Lys Glu Glu Phe Glu Tyr Ile Ala Phe Arg Cys
 50 55 60
 Ala Tyr Cys Phe Phe Leu Asn Pro Ala Arg Lys Thr Arg Pro Gln Ala
 65 70 75 80
 Pro Arg Leu Pro Glu Phe Ser Phe Glu Lys Arg Gln Val Val Glu Gly
 85 90 95
 Ser Ser Ser Val Gly Pro Leu Pro Ser Gly Ser Val Leu Ser Ser Asp
 100 105 110
 Asn Gln Phe Asn Glu Glu Ser Leu Glu His Asp Val Leu Asp Asp Asn
 115 120 125
 Thr Glu Gln Thr Asp Asp Lys Ile Pro Ala Thr Glu Gln Thr Asn Gln
 130 135 140
 Val Ile Glu Lys Ala Ser Asp Ser Glu Glu Pro Glu Glu Lys Gln Glu
 145 150 155 160
 Thr Glu Asn Glu Glu Ala Ser Val Ile Glu Thr Asn Ser Thr Val Pro
 165 170 175
 Gly Ala Asp Ser Ile Pro Asp Pro Glu Leu Ser Gly Glu Ser Leu Thr
 180 185 190
 Ala Glu

<210> 4451
 <211> 1637
 <212> DNA
 <213> Homo sapiens

<400> 4451
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 180
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 240
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 300

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 1637

<210> 4452

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4452

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Lys Tyr Asn Phe Tyr Leu Pro Phe Phe Phe Gly Pro Ile Met Thr			
	35	40	45
Phe Asp Arg Phe His Ala Gln Val Ser Gln Val Glu Pro Val Arg Arg			
	50	55	60
Glu Gly Glu Leu Trp His Ile Arg Ala Gln Ala Gly Leu Ser Val Val			
65	70	75	80
Ala Ile Met Ala Val Asp Ile Phe Phe His Phe Phe Tyr Ile Leu Thr			
	85	90	95
Ile Pro Ser Asp Leu Lys Phe Ala Asn Arg Leu Pro Asp Ser Ala Leu			
	100	105	110
Ala Gly Leu Ala Tyr Ser Asn Leu Val Tyr Asp Trp Val Lys Ala Ala			
	115	120	125
Val Leu Phe Gly Val Val Asn Thr Val Ala Cys Leu Asp His Leu Asp			
	130	135	140
Pro Pro Gln Pro Pro Lys Cys Ile Thr Ala Leu Tyr Val Phe Ala Glu			
145	150	155	160
Thr His Phe Asp Arg Gly Ile Asn Asp Trp Leu Cys Lys Tyr Val Tyr			
	165	170	175
Asn His Ile Gly Gly Glu His Ser Ala Val Ile Pro Glu Leu Ala Ala			
	180	185	190
Thr Val Ala Thr Phe Ala Ile Thr Thr Leu Trp Leu Gly Pro Cys Asp			
	195	200	205
Ile Val Tyr Leu Trp Ser Phe Leu Asn Cys Phe Gly Leu Asn Phe Glu			
	210	215	220
Leu Trp Met Gln Lys Leu Ala Glu Trp Gly Pro Leu Ala Arg Ile Glu			
225	230	235	240
Ala Ser Leu Ser Val Gln Met Ser Arg Arg Val Arg Ala Leu Phe Gly			
	245	250	255
Ala Met Asn Phe Trp Ala Ile Ile Met Tyr Asn Leu Val Ser Leu Asn			
	260	265	270
Ser Leu Lys Phe Thr Glu Leu Val Ala Arg Arg Leu Leu Leu Thr Gly			
	275	280	285
Phe Pro Gln Thr Thr Leu Ser Ile Leu Phe Val Thr Tyr Cys Gly Val			
	290	295	300
Gln Leu Val Lys Glu Arg Glu Arg Thr Leu Ala Leu Glu Glu Glu Gln			
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<210> 4453

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4453

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180

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 420
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<210> 4454

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4454

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			20					25					30		
Gln	Lys	Trp	Ala	Ala	Gly	Ala	Lys	Ala	Tyr	Leu	Asn	Lys	Gly	Ser	Lys
		35					40					45			
Gly	Pro	Leu	Ser	Leu	Gly	Ser	Ser	Ile	Gln	Pro	Leu	Ser	Gln	Gln	Arg
	50					55					60				
Gln	Asp	Cys	Gly	Pro	Leu	Cys	Phe	Leu	Asn	Arg	Ala	Gln	Gly	Ser	Gln
65				70						75					80
Gly	Met	Pro	Ser	Leu	Gln	His	Ser	Thr	Leu	Trp	Ser	Gln	Trp	Ser	Arg
			85					90						95	
Arg	Ser	Ser	Leu	Lys	Tyr	Tyr	Tyr	Arg	Gly	Glu	Arg	Pro	Ile	Leu	Ala
			100					105					110		
Met	Leu	Leu	Tyr	Leu	Pro	Arg	Pro	Lys	Thr	Val	Leu	Cys	Ser	Phe	Ser
	115						120					125			
Cys	Ser	Glu	Ile	Arg	Ser	Gln	Asn	Ser	Arg	Arg	His	Ser	Phe	Gly	Lys
	130					135					140				
Lys	Gly	His	Ala	Phe	Val	Leu	Tyr	Leu	Ile	Leu	Val	Ser	Glu	Ala	Leu
145					150					155					160
Ile	Pro	Val	Asp	Cys	Gly	Leu	Arg	Trp	Ser	Pro	Pro	Gln	Asp	Pro	Gln
			165					170					175		
Leu	Gln	Arg	Gln	Arg	Arg	Met	Lys	Glu	Glu	Gln	Pro	Pro	Gln	Asp	Leu
		180						185					190		
Leu	His	Trp	Glu	Pro	His	Pro	Thr	Phe	Ser	Val	Pro	Phe	Thr	Arg	
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<210> 4455

<211> 882

<212> DNA

<213> Homo sapiens

<400> 4455

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<210> 4456

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4456

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			20					25					30		
Ile	Tyr	Glu	Leu	Thr	Val	Leu	Lys	Asp	Arg	Phe	Thr	Gly	Met	His	Lys
		35					40					45			
Gly	Cys	Ala	Phe	Leu	Thr	Tyr	Cys	Glu	Arg	Glu	Ser	Ala	Leu	Lys	Ala
	50					55				60					
Gln	Ser	Ala	Leu	His	Glu	Gln	Lys	Thr	Leu	Pro	Gly	Met	Asn	Arg	Pro
65				70					75					80	
Ile	Gln	Val	Lys	Pro	Ala	Asp	Ser	Glu	Ser	Arg	Gly	Asp	Ser	Ser	Cys
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<210> 4457
<211> 1491
<212> DNA
<213> Homo sapiens
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240
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780

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 960
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 1380
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 1491

<210> 4458

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4458

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Gln	Leu	Leu	Met	Tyr	Gln	Gln	His	Thr	Ser	His	Tyr	Asp	Leu	Glu	Arg
		20					25						30		
Lys	Gly	Gly	Tyr	Leu	Met	Leu	Ser	Phe	Ile	Asp	Phe	Cys	Pro	Phe	Ser
	35					40						45			
Val	Met	Arg	Leu	Arg	Ser	Leu	Pro	Ser	Pro	Gln	Arg	Tyr	Thr	Arg	Gln
	50				55					60					
Glu	Arg	Tyr	Arg	Ala	Arg	Pro	Pro	Arg	Val	Leu	Glu	Arg	Ser	Gly	Phe
65				70					75					80	
His	Asn	Glu	Asn	Ser	Leu	Ala	Ile	Tyr	Gln	Gly	Leu	Val	Tyr	Tyr	Leu
			85					90					95		
Leu	Trp	Leu	His	Ser	Val	Tyr	Asp	Lys	Asp	Tyr	Tyr	Phe	Phe	Leu	Ala
		100						105					110		
Ser	Asn	Trp	Arg	Ser	Ala	Gly	Gly	Val	Ser	Ile	Glu	Met	Asp	Ser	Tyr
	115					120					125				
Glu	Lys	Ile	Tyr	Asn	Leu	Glu	Ser	Ala	Tyr	Glu	Leu	Pro	Glu	Arg	Ile
	130				135					140					
Phe	Leu	Asp	Lys	Gly	Thr	Glu	Tyr	Ser	Phe	Ala	Ile	Phe	Leu	Ser	Ala
145				150					155					160	
Gln	Gly	His	Ser	Phe	Arg	Thr	Gln	Ser	Glu	Leu	Gly	Leu	Arg	Gly	Thr
			165					170					175		
Arg	Val	Glu	Pro	Glu	Gly	Arg	Gly	Glu	Gly	Tyr	Gln	Asn	Leu	Gly	Ala

180							185					190				
Trp	Gly	Ala	Gly	Thr	Pro	Ser	Glu	Gly	Arg	Gly	Leu	Ser	Val	Asp	Val	
195							200					205				
Gly	Val	Val	Leu	Ala	Asp	Pro	Gly	Cys	Ile	Glu	Ala	Ser	Val	Lys	Gln	
210							215					220				
Glu	Val	Leu	Ile	Asn	Arg	Asn	Ser	Val	Leu	Phe	Ser	Ile	Thr	Leu	Lys	
225	230							235					240			
Asp	Lys	Lys	Leu	Cys	Tyr	Asp	Gln	Gly	Ile	Ser	Gly	His	His	Leu	Met	
245							250					255				
Glu	Thr	Ser	Met	Thr	Val	Asn	Val	Arg	Ser	Lys	Pro	Gly	Gly	Glu	Gly	
260							265					270				
Lys	Arg	Leu	Ala	Phe	Asp	Ile	Thr	Tyr	Thr	Leu	Glu	Tyr	Ser	Arg	Leu	
275							280					285				
Lys	Asn	Lys	His	Tyr	Phe	Asp	Cys	Val	Asn	Val	Asn	Pro	Glu	Met	Pro	
290							295					300				
Cys	Phe	Leu	Phe	Arg	Asp	Ser	Val	Tyr	Val	Leu	Leu	Val	Val	Gly	Gly	
305	310							315					320			
Gly	Pro	Thr	Leu	Asp	Ser	Leu	Lys	Asp	Tyr	Ser	Glu	Asp	Glu	Ile	Tyr	
325							330					335				
Arg	Phe	Asn	Ser	Pro	Leu	Asp	Lys	Thr	Asn	Ser	Leu	Ile	Trp	Thr	Thr	
340							345					350				
Arg	Thr	Thr	Arg	Thr	Thr	Lys	Asp	Ser	Ala	Phe	His	Ile	Met	Ser	His	
355							360					365				
Glu	Ser	Pro	Gly	Ile	Glu	Trp	Leu	Cys	Leu	Glu	Asn	Ala	Pro	Cys	Tyr	
370							375					380				
Asp	Asn	Val	Pro	Gln	Gly	Ile	Phe	Ala	Pro	Glu	Phe	Phe	Phe	Lys	Val	
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Leu	Val	Ser	Asn	Arg												
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<210> 4459
<211> 1114
<212> DNA
<213> Homo sapiens
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120
gccgattgat ctaagaaact ttattgctca gaaccttccc tccctgggca atggaaagag
180
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240
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300
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360
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540
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 720
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 780
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 960
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 1020
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<210> 4460

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4460

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Ala	Pro	Pro	Ser	Arg	Ala	Ala	Arg	Arg	Ala	Arg	Ala	Leu	Ser	Pro	Ser
			20					25					30		
Gly	Lys	Glu	Arg	Ala	Ala	Pro	Ser	Gln	Gly	Ser	Pro	Arg	Cys	Cys	Pro
	35						40					45			
Leu	Ser	Pro	Gly	Ser	Ala	Arg	Gly	Ala	Arg	Gly	Glu	Asn	Gln	Pro	Arg
	50					55					60				
Ser	Arg	Gly	Arg	Ala	Ala	Asn	Gly	Arg	Ala	Pro	Pro	Gly	Pro	Leu	Thr
65					70				75					80	
Arg	Arg	Leu	Ala	Gly	Arg	Ala	Arg	Thr	Pro	Arg	Pro	Lys	Trp	Leu	Phe
			85					90					95		
Gln	Gly	Ala	Ser	Gln	Ala	Gly	Glu	Leu	Gly	Lys	Gln	Arg	Arg	Met	Pro
		100						105					110		
Gly	Leu	Val	Lys	Arg	Val	Arg	Asp	Val							
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<210> 4461

<211> 488

<212> DNA

<213> Homo sapiens

<400> 4461

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 120

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 180
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 240
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 360
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<210> 4462

<211> 96

<212> PRT

<213> Homo sapiens

<400> 4462

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Asn	Pro	Tyr	Asn	Asn	Leu	Ile	Phe	Ile	Trp	Gly	Asn	Phe	Leu	Leu	Gln
			20					25					30		
Ser	Ser	Asn	Lys	Glu	Asn	Phe	Ile	Tyr	Leu	Ala	Asp	Phe	Pro	Lys	Glu
		35					40					45			
Leu	Ser	Ile	Lys	Tyr	Met	Ala	Arg	Ser	Phe	Arg	Gly	Ala	Val	Ala	Ile
	50					55					60				
Val	Thr	Glu	Thr	Glu	Glu	Val	Gly	Cys	Pro	Ala	Leu	Leu	Pro	Ile	Pro
65					70					75				80	
Ser	Leu	Pro	Thr	Pro	Lys	Pro	Gln	Gly	Pro	Leu	Phe	Pro	Pro	Ser	Gln
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<210> 4463

<211> 2662

<212> DNA

<213> Homo sapiens

<400> 4463

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 120
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 180
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 240
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 300
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 360
 cgcattggtg gcgtggagta cccgggagtg gtgcgtgatg tggctaagat gctgccgact
 420

ctgggcggtg aggaaggcgt ctcccggatc tacgcagacc ccaccaagag gctggagctg
480
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2040

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 2160
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 2220
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<210> 4464

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4464

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		20						25					30		
Val	Arg	Asp	Val	Ala	Lys	Met	Leu	Pro	Thr	Leu	Gly	Gly	Glu	Glu	Gly
		35					40				45				
Val	Ser	Arg	Ile	Tyr	Ala	Asp	Pro	Thr	Lys	Arg	Leu	Glu	Leu	Tyr	Phe
	50					55				60					
Arg	Pro	Lys	Asp	Pro	Tyr	Cys	His	Pro	Val	Cys	Ala	Asn	Arg	Phe	Ser
65					70					75				80	
Thr	Ser	Ser	Leu	Leu	Leu	Arg	Ile	Arg	Lys	Arg	Thr	Arg	Arg	Gln	Lys
			85					90						95	
Gly	Val	Leu	Gly	Thr	Glu	Ala	His	Ser	Glu	Val	Thr	Phe	Asp	Met	Glu
		100						105					110		
Ile	Leu	Gly	Ile	Ile	Ser	Thr	Ile	Tyr	Lys	Phe	Gln	Gly	Met	Ser	Asp
		115					120					125			
Phe	Gln	Tyr	Leu	Ala	Val	His	Thr	Glu	Ala	Gly	Gly	Lys	His	Thr	Ser
	130					135				140					
Met	Tyr	Asp	Lys	Val	Leu	Met	Leu	Arg	Pro	Glu	Lys	Glu	Ala	Phe	Phe
145					150					155				160	
His	Gln	Glu	Leu	Pro	Leu	Tyr	Ile	Pro	Pro	Pro	Ile	Phe	Ser	Arg	Leu
			165					170						175	
Asp	Ala	Pro	Val	Asp	Tyr	Phe	Tyr	Arg	Pro	Glu	Thr	Gln	His	Arg	Glu
		180						185					190		
Gly	Tyr	Asn	Asn	Pro	Pro	Ile	Ser	Gly	Glu	Asn	Leu	Ile	Gly	Leu	Ser

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210	215	220
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225	230	235
Val Cys Thr Asn Pro Val Asp Arg Lys Val Glu Glu Glu Leu Arg Lys		240
	245	250
Leu Phe Asp Ile Arg Pro Ile Trp Ser Arg Asn Ala Val Lys Ala Asn		255
	260	265
Ile Ser Val His Pro Asp Lys Leu Lys Val Leu Leu Pro Phe Ile Ala		270
	275	280
Tyr Tyr Met Ile Thr Gly Pro Trp Arg Ser Leu Trp Ile Arg Phe Gly		285
	290	295
Tyr Asp Pro Arg Lys Asn Pro Asp Ala Lys Ile Tyr Gln Val Leu Asp		300
305	310	315
Phe Arg Ile Arg Cys Gly Met Lys His Gly Tyr Ala Pro Ser Asp Leu		320
	325	330
Pro Val Lys Ala Lys Arg Ser Thr Tyr Asn Tyr Ser Leu Pro Ile Thr		335
	340	345
Val Lys Lys Thr Ser Ser Gln Leu Val Thr Met His Asp Leu Lys Gln		350
	355	360
Gly Leu Gly Arg Ser Gly Thr Ser Gly Ala Arg Lys Pro Ala Ser Ser		365
	370	375
Lys Tyr Lys Leu Lys Asp Ser Val Tyr Ile Phe Arg Glu Gly Ala Leu		380
385	390	395
Pro Pro Tyr Arg Gln Met Phe Tyr Gln Leu Cys Asp Leu Asn Val Glu		400
	405	410
Glu Leu Gln Lys Ile Ile His Arg Asn Asp Gly Ala Glu Asn Ser Cys		415
	420	425
Thr Glu Arg Asp Gly Trp Cys Leu Pro Lys Thr Ser Asp Glu Leu Arg		430
	435	440
Asp Thr Met Ser Leu Met Ile Arg Gln Thr Ile Arg Ser Lys Arg Pro		445
	450	455
Ala Leu Phe Ser Ser Ser Ala Lys Ala Asp Gly Gly Lys Glu Gln Leu		460
465	470	475
Thr Tyr Glu Ser Gly Glu Asp Glu Glu Asp Glu Glu Glu Glu Glu		480
	485	490
Glu Glu Glu Asp Phe Lys Pro Ser Asp Gly Ser Glu Asn Glu Met Glu		495
	500	505
Thr Glu Ile Leu Asp Tyr Val		510
515		

<210> 4465

<211> 1291

<212> DNA

<213> Homo sapiens

<400> 4465

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120

ngcgccgtgg ggctagtggc cgccgtgaag gccaccgacc agtactgcgc ccgcctccgc
180

caggccggct cggccgcgcc cgggccaccg cgggccagc agccacagca gccatccaa
 240
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 300
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 360
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 420
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<210> 4466

<211> 93

<212> PRT

<213> Homo sapiens

<400> 4466

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Leu	Arg	Gln	Met	Val	Gly	Glu	Arg	Tyr	Arg	Asp	Leu	Ile	Glu	Ala	Xaa
		20						25					30		
Asp	Thr	Ile	Gly	Gln	Met	Arg	Arg	Xaa	Ala	Val	Gly	Leu	Val	Asp	Ala
		35					40					45			
Val	Lys	Ala	Thr	Asp	Gln	Tyr	Cys	Ala	Arg	Leu	Arg	Gln	Ala	Gly	Ser
	50					55					60				
Ala	Ala	Pro	Arg	Pro	Pro	Arg	Ala	Gln	Gln	Pro	Gln	Gln	Pro	Ser	Gln

65		70		75	80
Glu	Lys	Phe	Tyr	Ser	Met
		Ala	Ala	Arg	Ser
			Ser	Ser	Tyr
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		85		90	

<210> 4467
 <211> 1142
 <212> DNA
 <213> Homo sapiens

<400> 4467
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 1142

<210> 4468
 <211> 170
 <212> PRT

<213> Homo sapiens

<400> 4468

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Lys Glu His Leu Ser Gln Leu Glu Ser Pro Val Val Phe Cys His Asn
           20           25           30
Asp Leu Leu Cys Lys Asn Ile Ile Tyr Asp Ser Ile Lys Gly His Val
           35           40           45
Arg Phe Ile Asp Tyr Glu Tyr Ala Gly Tyr Asn Tyr Gln Ala Phe Asp
           50           55           60
Ile Gly Asn His Phe Asn Glu Phe Ala Gly Val Asn Glu Val Asp Tyr
65           70           75           80
Cys Leu Tyr Pro Ala Arg Glu Thr Gln Leu Gln Trp Leu His Tyr Tyr
           85           90           95
Leu Gln Ala Gln Lys Gly Met Ala Val Thr Pro Arg Glu Val Gln Arg
           100          105          110
Leu Tyr Val Gln Val Asn Lys Phe Ala Leu Ala Ser His Phe Phe Trp
           115          120          125
Ala Leu Trp Ala Leu Ile Gln Asn Gln Tyr Ser Thr Ile Asp Phe Asp
           130          135          140
Phe Leu Arg Tyr Ala Val Ile Arg Phe Asn Gln Tyr Phe Lys Val Lys
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<210> 4469

<211> 409

<212> DNA

<213> Homo sapiens

<400> 4469

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240
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<210> 4470

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4470

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Ile Tyr Asp Ala Gln His Ala Asn Leu Ala Gly Thr Leu Ser Gly His

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	20	25	30
Val Ser Arg Ser Gln Cys Trp Ser Gly Leu Gly Trp Pro Arg Gln Leu			
	35	40	45
Glu Ser Arg Arg Trp Thr Thr			
50	55		

<210> 4471

<211> 1771

<212> DNA

<213> Homo sapiens

<400> 4471

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180
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240
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360
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1200

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 1320
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 1380
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 1771

<210> 4472

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4472

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Ala	Pro	Leu	Pro	Gly	Leu	Ser	Ala	Pro	Gly	Arg	Leu	Phe	Asp	Gln	Arg
			20					25					30		
Phe	Gly	Glu	Gly	Leu	Leu	Glu	Ala	Glu	Leu	Ala	Ala	Leu	Cys	Pro	Thr
		35					40					45			
Thr	Leu	Ala	Pro	Tyr	Tyr	Leu	Arg	Ala	Pro	Ser	Val	Ala	Leu	Pro	Val
	50					55					60				
Ala	Gln	Val	Pro	Thr	Asp	Pro	Gly	His	Phe	Ser	Val	Leu	Leu	Asp	Val
65					70					75				80	
Lys	His	Phe	Ser	Pro	Glu	Glu	Ile	Ala	Val	Lys	Val	Val	Gly	Glu	His
				85					90					95	
Val	Glu	Val	His	Ala	Arg	His	Glu	Glu	Arg	Pro	Asp	Glu	His	Gly	Phe
			100					105					110		
Val	Ala	Arg	Glu	Phe	His	Arg	Arg	Tyr	Arg	Leu	Pro	Pro	Gly	Val	Asp
		115					120					125			
Pro	Ala	Ala	Val	Thr	Ser	Ala	Leu	Ser	Pro	Glu	Gly	Val	Leu	Ser	Ile
	130					135					140				
Gln	Ala	Ala	Pro	Ala	Ser	Ala	Gln	Ala	Pro	Pro	Pro	Ala	Ala	Ala	Lys
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<210> 4473

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4473

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 420
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 660
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<210> 4474

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4474

Met	Thr	Asn	Gln	Tyr	Gly	Ile	Leu	Phe	Lys	Gln	Glu	Gln	Ala	His	Asp
1				5					10					15	
Asp	Ala	Ile	Trp	Ser	Val	Ala	Trp	Gly	Thr	Asn	Lys	Lys	Glu	Asn	Ser
			20					25					30		
Glu	Thr	Val	Val	Thr	Gly	Ser	Leu	Asp	Asp	Leu	Val	Lys	Val	Trp	Lys

35 40 45
 Trp Arg Asp Glu Arg Leu Asp Leu Gln Trp Ser Leu Glu Gly His Gln
 50 55 60
 Leu Gly Val Val Ser Val Asp Ile Ser His Thr Leu Pro Ile Ala Ala
 65 70 75 80
 Ser Ser Ser Leu Asp Ala His Ile Arg Leu Trp Asp Leu Glu Asn Gly
 85 90 95
 Lys Gln Met Lys Ser Ile Asp Ala Gly Pro Val Asp Ala Trp Thr Leu
 100 105 110
 Ala Phe Ser Pro Asp Ser Gln His Leu Ala Thr Gly Thr His Met Gly
 115 120 125
 Lys Val Asn Ile Phe Gly Val Glu Ser Gly Lys Lys Glu Tyr Ser Leu
 130 135 140
 Asp Thr Arg Gly Lys Phe Ile Leu Ser Ile Ala Tyr Ser Pro Asp Gly
 145 150 155 160
 Lys Tyr Leu Ala Ser Gly Ala Ile Asp Gly Ile Ile Asn Ile Phe Asp
 165 170 175
 Ile Ala Thr Gly Lys Leu Leu His Thr Leu Glu Gly His Ala Met Pro
 180 185 190
 Ile Arg Ser Leu Thr Phe Ser Pro Asp Ser Gln Leu Leu Val Thr Ala
 195 200 205
 Ser Asp Asp Gly Tyr Ile Lys Ile Tyr Asp Val Gln His Ala Asn Leu
 210 215 220
 Ala Gly Thr Leu Ser Gly His Ala Ser Trp Val Leu Asn Val Ala Phe
 225 230 235 240
 Cys Pro Asp Asp Thr His Phe Val Ser Ser Ser Ser Asp Lys Ser Val
 245 250 255
 Lys Val Trp Asp Val Gly Thr Arg Thr Cys Val His Thr Phe Phe Asp
 260 265 270
 His Gln Asp Gln Val Trp Gly Val Lys Tyr Asn Gly Asn Gly Ser Lys
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 Ile Val Ser Val Gly Asp Asp Gln Glu Ile His Ile Tyr Asp Cys Pro
 290 295 300
 Ile
 305

<210> 4475

<211> 475

<212> DNA

<213> Homo sapiens

<400> 4475

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 120
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 180
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 360

ccacttctga gggctggagg gacaggaact tcctttcttc cccctttctg tctcctcgcg
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 475

<210> 4476

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4476

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Gly	Leu	His	Pro	Gly	Gly	Gly	Leu	Arg	Ala	Ala	Gly	Arg	Gln	Gln	Met
			20					25					30		
Ser	Arg	Arg	Ser	Ser	Ser	Ser	Gln	Pro	Leu	Pro	Gln	Ser	Ala	Arg	Thr
		35					40					45			
Gly	His	Thr	Glu	Gly	Ser	Val	Ala	Leu	His	Gly	Ser	Pro	Ala	Ser	Arg
	50					55				60					
Gln	Thr	Ser	Gln	Arg	Trp	Thr	Val	Cys	Gln	Gly	Trp	Asp	Trp	Asn	Ser
65					70					75				80	
Arg	Arg	Ser	Leu	Asp	Thr	Ser	Gly	Ile	Arg	Glu	Thr	Ser	Leu	Gly	Arg
			85						90					95	
Tyr	Pro	Leu	Pro	Ser	Ser	Arg	Val	His	Ala						
			100					105							

<210> 4477

<211> 1153

<212> DNA

<213> Homo sapiens

<400> 4477

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<210> 4478

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4478

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Lys	Thr	Glu	Tyr	Gln	Glu	Ser	Glu	Phe	Leu	Ser	Pro	Ala	Tyr	Ser	Asp
		20						25					30		
Lys	Pro	Leu	Gly	Leu	Cys	Glu	Asn	Ala	Asp	Val	Leu	Asp	Arg	Arg	Leu
		35					40					45			
Trp	Glu	Gly	Asn	Met	Lys	Glu	Glu	Asn	Asn	Asn	Glu	Ser	Lys	Ser	Thr
		50				55					60				
Ser	Ile	Pro	Gly	His	Phe	Ile	His	Phe	Gln	Asp	Tyr	Cys	Ala	Pro	Ile
65				70					75					80	
Ser	Thr	Leu	Met	Val	Cys	Val	Asp	Thr	Ala	Gln	Gly	Cys	Ile	Ser	Leu
			85					90					95		
Arg	Cys	His	Thr	Phe	Pro	Leu	Val	Ser	Ser	Asp	Ile	Met	Pro	Gln	Phe
			100					105					110		
Leu	Gln	Ser	His	Ile	Lys										
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<210> 4479

<211> 2158

<212> DNA

<213> Homo sapiens

<400> 4479

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<210> 4480

<211> 308

<212> PRT

<213> Homo sapiens

<400> 4480

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Asp	Tyr	Gly	Glu	Pro	Glu	Arg	Gly	Gly	Gly	Pro	Arg	Ala	Ala	Gln	Gly
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Glu	Met	Ser	Ser	Thr	Ser	Ser	Lys	Arg	Ala	Pro	Thr	Thr	Ala	Thr	Gln
	50					55					60				
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Ile	Cys	Ala	Glu	Pro	Leu	Pro	Ser	Asn	Ile	Leu	Glu	Trp	His	Tyr	Val
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Val	Arg	Gly	Pro	Glu	Met	Thr	Pro	Tyr	Glu	Gly	Gly	Tyr	Tyr	His	Gly
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Lys	Leu	Ile	Phe	Pro	Arg	Glu	Phe	Pro	Phe	Lys	Pro	Pro	Ser	Ile	Tyr
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			180					185					190		
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Phe	Pro	Glu	Val	Val	Glu	Glu	Ile	Lys	Gln	Lys	Gln	Lys	Ala	Gln	Asp
		210				215					220				
Glu	Leu	Ser	Ser	Arg	Pro	Gln	Thr	Leu	Pro	Leu	Pro	Asp	Val	Val	Pro
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Asp	Gly	Glu	Thr	His	Leu	Val	Gln	Asn	Gly	Ile	Gln	Leu	Leu	Asn	Gly
			245					250						255	
His	Ala	Pro	Gly	Ala	Val	Pro	Asn	Leu	Ala	Gly	Leu	Gln	Gln	Ala	Asn
			260				265						270		
Arg	His	His	Gly	Leu	Leu	Gly	Gly	Ala	Leu	Ala	Asn	Leu	Phe	Val	Ile

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 Val Gly Phe Ala Ala Phe Ala Tyr Thr Val Lys Tyr Val Leu Arg Ser
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 Ile Ala Gln Glu
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<210> 4481
 <211> 320
 <212> DNA
 <213> Homo sapiens

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<210> 4482
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 4482
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 20 25 30
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 35 40 45
 Ser Arg Thr Pro Asp Phe Trp Gly Val Pro Asp Ser Arg Gly Gly Pro
 50 55 60
 Arg Ala Gly Leu Gly His Val Gln Ser Leu Ile Asp Leu Cys Pro Phe
 65 70 75 80
 Leu Pro Leu Pro Leu Cys Ala Ser Leu Asp Ser Pro Arg Glu Phe Ser
 85 90 95
 Arg Met Gly Thr Gln
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<210> 4483
 <211> 1852
 <212> DNA
 <213> Homo sapiens

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 1852

<210> 4484

<211> 452

<212> PRT

<213> Homo sapiens

<400> 4484

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		20						25					30		
Lys	Pro	Leu	Ile	Trp	Tyr	Pro	Leu	Asn	Leu	Leu	Glu	Arg	Val	Gly	Phe
	35					40					45				
Glu	Glu	Val	Ile	Val	Val	Thr	Thr	Arg	Asp	Val	Gln	Lys	Ala	Leu	Cys
	50				55					60					
Ala	Glu	Phe	Lys	Met	Lys	Met	Lys	Pro	Asp	Ile	Val	Cys	Ile	Pro	Asp
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Asp	Ala	Asp	Met	Gly	Thr	Ala	Asp	Ser	Leu	Arg	Tyr	Ile	Tyr	Pro	Lys
		85						90					95		
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Ala	Met	Leu	Met	Arg	Lys	Gly	Gln	Asp	Ser	Ile	Glu	Pro	Val	Pro	Gly
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Gln	Lys	Gly	Lys	Lys	Lys	Ala	Val	Glu	Gln	Arg	Asp	Phe	Ile	Gly	Val
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		165						170						175	
Asp	Glu	Glu	Leu	Val	Ile	Lys	Gly	Ser	Ile	Leu	Gln	Lys	His	Pro	Arg
	180							185					190		
Ile	Arg	Phe	His	Thr	Gly	Leu	Val	Asp	Ala	His	Leu	Tyr	Cys	Leu	Lys
	195					200						205			
Lys	Tyr	Ile	Val	Asp	Phe	Leu	Met	Glu	Asn	Gly	Ser	Ile	Thr	Ser	Ile
	210					215					220				
Arg	Ser	Glu	Leu	Ile	Pro	Tyr	Leu	Val	Arg	Lys	Gln	Phe	Ser	Ser	Ala
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Ser	Ser	Gln	Gln	Gly	Gln	Glu	Glu	Lys	Glu	Glu	Asp	Leu	Lys	Lys	Lys
		245						250					255		
Glu	Leu	Lys	Ser	Leu	Asp	Ile	Tyr	Ser	Phe	Ile	Lys	Glu	Ala	Asn	Thr
	260					265							270		
Leu	Asn	Leu	Ala	Pro	Tyr	Asp	Ala	Cys	Trp	Asn	Ala	Cys	Arg	Gly	Asp
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Arg	Trp	Glu	Asp	Leu	Ser	Arg	Ser	Gln	Val	Arg	Cys	Tyr	Val	His	Ile
	290					295					300				
Met	Lys	Glu	Gly	Leu	Cys	Ser	Arg	Val	Ser	Thr	Leu	Gly	Leu	Tyr	Met
305				310						315				320	
Glu	Ala	Asn	Arg	Gln	Val	Pro	Lys	Leu	Leu	Ser	Ala	Leu	Cys	Pro	Glu

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Glu Pro Pro Val His Ser Ser Ala Gln Ile Val Ser Lys His Leu Val
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Gly Val Asp Ser Leu Ile Gly Pro Glu Thr Gln Ile Gly Glu Lys Ser
          355          360          365
Ser Ile Lys Arg Ser Val Ile Gly Ser Ser Cys Leu Ile Lys Asp Arg
          370          375          380
Val Thr Ile Thr Asn Cys Leu Leu Met Asn Ser Val Thr Val Glu Glu
385          390          395          400
Gly Ser Asn Ile Gln Gly Ser Val Ile Cys Asn Asn Ala Val Ile Glu
          405          410          415
Lys Gly Ala Asp Ile Lys Asp Cys Leu Ile Gly Ser Gly Gln Arg Ile
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<210> 4485

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4485

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<210> 4486

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4486

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          20          25          30
Ser Ile Ser Leu Pro Ser Gly Ala Pro Gly Gly Gln Gly Asp Leu Leu

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35	40	45
Pro Gln Ala Val	Pro His Leu Ile Pro Lys Val	Ser Ser Asn Glu Val
50	55	60
Asp Ser Phe Lys Tyr Trp Trp Phe Trp Leu Ala	Arg Val Ser Glu Gly	
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Thr Glu Lys Thr Pro Lys Cys Arg Val Cys Asp Thr Ala Gln Ser Ser		80
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<210> 4487

<211> 387

<212> DNA

<213> Homo sapiens

<400> 4487

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240
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<210> 4488

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4488

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	15
20	25
Leu Leu Ala Cys Gly Asp Val Glu Gly Lys Phe Asp Ile Leu Phe Asn	30
35	40
Arg Val Gln Ala Ile Gln Lys Lys Ser Gly Asn Phe Asp Leu Leu Leu	45
50	55
Cys Val Gly Asn Phe Phe Gly Ser Thr Gln Asp Ala Glu Trp Glu Glu	60
65	70
Tyr Lys Thr Gly Ile Lys Lys Ala Pro Ile Gln Thr Tyr Val Leu Gly	75
	80
85	90
Ala Asn Asn Gln Glu Thr Val Lys Tyr Phe Gln Asp Ala Asp Gly Cys	95
100	105
Glu Leu Ala Glu Asn Ile Thr Tyr Leu Gly Arg Lys Gly Ile Phe Thr	110
115	120
Gly	125

<210> 4489
<211> 2390
<212> DNA
<213> Homo sapiens

<400> 4489
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<210> 4490

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4490

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			20					25					30		
Leu	Leu	Trp	Lys	Leu	Met	Trp	Arg	Glu	Pro	Gly	Ala	Tyr	Ile	Phe	Leu
		35				40					45				
Gln	Asn	Pro	Pro	Gly	Leu	Pro	Ser	Ile	Ala	Val	Cys	Trp	Phe	Val	Gly
	50					55					60				
Cys	Leu	Cys	Gly	Ser	Lys	Leu	Val	Ile	Asp	Trp	His	Asn	Tyr	Gly	Tyr
65				70					75				80		
Ser	Ile	Met	Gly	Leu	Val	His	Gly	Pro	Asn	His	Pro	Leu	Val	Leu	Leu
			85					90					95		
Ala	Lys	Trp	Tyr	Glu	Lys	Phe	Phe	Gly	Arg	Leu	Ser	His	Leu	Asn	Leu

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      115      120      125
Arg Ala Val Thr Val Tyr Asp Lys Pro Ala Ser Phe Phe Lys Glu Thr
      130      135      140
Pro Leu Asp Leu Gln His Arg Leu Phe Met Lys Leu Gly Ser Met His
      145      150      155      160
Ser Pro Phe Arg Ala Arg Ser Glu Pro Glu Asp Pro Val Thr Glu Arg
      165      170      175
Ser Ala Phe Thr Glu Arg Asp Ala Gly Ser Gly Leu Val Thr Arg Leu
      180      185      190
Arg Glu Arg Pro Ala Leu Leu Val Ser Ser Thr Ser Trp Thr Glu Asp
      195      200      205
Glu Asp Phe Ser Ile Leu Leu Ala Ala Leu Glu Lys Phe Glu Gln Leu
      210      215      220
Thr Leu Asp Gly His Asn Leu Pro Ser Leu Val Cys Val Ile Thr Gly
      225      230      235      240
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<211> 560

<212> PRT

<213> Homo sapiens

<400> 4496

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Thr	Ala	Gly	Lys	His	Pro	Trp	Gln	Ala	Ser	Leu
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Phe	His	Glu	Gln	Ser	Phe	Arg	Val	Glu	Lys	Ile
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Ile	Ser	Gly	Trp	Gly	Val	Thr	Glu	Thr	Gly	Lys
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<210> 4497

<211> 840

<212> DNA

<213> Homo sapiens

<400> 4497

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<210> 4498

<211> 280

<212> PRT

<213> Homo sapiens

<400> 4498

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			20				25				30				
Pro	Lys	Ala	Ser	Thr	Thr	Ser	Asp	Gly	Asp	Glu	Ser	Pro	Pro	Ser	Ser
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Pro	Gly	Asn	Pro	Val	Gln	Gly	Gln	Cys	Gly	Glu	Glu	Glu	Asp	Ser	Leu

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 Pro Arg Glu Glu Arg Pro Gln Gln Ser Pro Lys Ala Ser Pro Gly Leu
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 Gln Ala Leu Lys Leu Asn Pro Gln Asp His Arg Leu Phe Gly Asn Arg
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 Ser Phe Cys His Glu Arg Leu Gly Gln Pro Ala Trp Ala Leu Ala Asp
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<211> 562

<212> DNA

<213> Homo sapiens

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Ser Leu Cys Gly Asp Trp Leu Gln Gly Leu His Arg Phe Val Ala Arg
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<211> 1866
<212> DNA
<213> Homo sapiens

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<211> 267

<212> PRT

<213> Homo sapiens

<400> 4502

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Lys	His	Lys	Val	Leu	Ser	Asp	Tyr	Leu	Arg	Glu	Arg	Ala	His	Asp	Gly
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Cys	Pro	Met	Gly	Leu	Leu	Ala	Gly	Gly	Asp	Val	Ala	Phe	Pro	Arg	Arg
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<210> 4503

<211> 1983

<212> DNA

<213> Homo sapiens

<400> 4503

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<211> 250

<212> PRT

<213> Homo sapiens

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<212> DNA

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<212> PRT

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4510

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Ala	Thr	Arg	Thr	Leu	Phe	Ile	Gly	Asn	Leu	Glu	Lys	Thr	Thr	Thr	Tyr
		35					40					45			
His	Asp	Leu	Arg	Asn	Ile	Phe	Gln	Arg	Phe	Gly	Glu	Ile	Val	Asp	Ile
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Asp	Ile	Lys	Lys	Val	Asn	Gly	Val	Pro	Gln	Tyr	Ala	Phe	Leu	Gln	Tyr

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Tyr	Leu	Thr	Arg	His	Phe	Cys	Arg	Tyr	Gly	Pro	Val	Val	Lys	Val	Val	
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 2625 2630 2635 2640
 Ser Thr Ala Ser Thr Ala Leu Ser Thr Asn Ala Thr Val Met Leu Ala
 2645 2650 2655
 Ala Gly Ile Pro Val Pro Gln Phe Ile Ser Ser Ile His Pro Glu Gln

	2660		2665		2670
Ser Val Ile Met Pro Pro His Ser Ile Thr Gln Thr Val Ser Leu Ser					
2675		2680		2685	
His Leu Ser Gln Gly Glu Val Arg Met Asn Thr Pro Thr Leu Pro Ser					
2690		2695		2700	
Ile Thr Tyr Ser Ile Arg Pro Glu Ala Leu His Ser Pro Arg Ala Pro					
2705		2710		2715	
Leu Gln Pro Gln Gln Ile Glu Val Arg Ala Pro Gln Arg Ala Ser Thr					
	2725		2730		2735
Pro Gln Pro Ala Pro Ala Gly Val Pro Ala Leu Ala Ser Gln His Pro					
	2740		2745		2750
Pro Glu Glu Glu Val His Tyr His Leu Pro Val Ala Arg Ala Thr Ala					
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Pro Val Gln Ser Glu Val Leu Val Met Gln Ser Glu Tyr Arg Leu His					
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Pro Tyr Thr Val Pro Arg Asp Val Arg Ile Met Val His Pro His Val					
2785		2790		2795	
Thr Ala Val Ser Glu Gln Pro Arg Ala Ala Asp Gly Val Val Lys Val					
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Pro Pro Ala Ser Lys Ala Pro Gln Gln Pro Gly Lys Glu Ala Ala Lys					
	2820		2825		2830
Thr Pro Asp Ala Lys Ala Ala Pro Thr Pro Thr Pro Ala Pro Val Pro					
	2835		2840		2845
Val Pro Val Pro Leu Pro Ala Pro Ala Pro Ala Pro His Gly Glu Ala					
	2850		2855		2860
Arg Ile Leu Thr Val Thr Pro Ser Asn Gln Leu Gln Gly Leu Pro Leu					
	2865		2870		2875
Thr Pro Pro Val Val Thr His Gly Val Gln Ile Val His Ser Ser					
	2885		2890		2895
Gly Glu Leu Phe Gln Glu Tyr Arg Tyr Gly Asp Ile Arg Thr Tyr His					
	2900		2905		2910
Pro Pro Ala Gln Leu Thr His Thr Gln Phe Pro Ala Ala Ser Ser Val					
	2915		2920		2925
Gly Leu Pro Ser Arg Thr Lys Thr Ala Ala Gln Gly Pro Pro Pro Glu					
	2930		2935		2940
Gly Glu Pro Leu Gln Pro Pro Gln Pro Val Gln Ser Thr Gln Pro Ala					
	2945		2950		2955
Gln Pro Ala Pro Pro Cys Pro Pro Ser Gln Leu Gly Gln Pro Gly Gln					
	2965		2970		2975
Pro Pro Ser Ser Lys Met Pro Gln Val Ser Gln Glu Ala Lys Gly Thr					
	2980		2985		2990
Gln Thr Gly Val Glu Gln Pro Arg Leu Pro Ala Gly Pro Ala Asn Arg					
	2995		3000		3005
Pro Pro Glu Pro His Thr Gln Val Gln Arg Ala Gln Ala Glu Thr Gly					
	3010		3015		3020
Pro Thr Ser Phe Pro Ser Pro Val Ser Val Ser Met Lys Pro Asp Leu					
	3025		3030		3035
Pro Val Ser Leu Pro Thr Gln Thr Ala Pro Lys Gln Pro Leu Phe Val					
	3045		3050		3055
Pro Thr Thr Ser Gly Pro Ser Thr Pro Pro Gly Leu Val Leu Pro His					
	3060		3065		3070
Thr Glu Phe Gln Pro Ala Pro Lys Gln Asp Ser Ser Pro His Leu Thr					
	3075		3080		3085
Ser Gln Arg Pro Val Asp Met Val Gln Leu Leu Lys Lys Tyr Pro Ile					

3090 3095 3100
 Val Trp Gln Gly Leu Leu Ala Leu Lys Asn Asp Thr Ala Ala Val Gln
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 Leu His Phe Val Ser Gly Asn Asn Val Leu Ala His Arg Ser Leu Pro
 3125 3130 3135
 Leu Ser Glu Gly Gly Pro Pro Leu Arg Ile Ala Gln Arg Met Arg Leu
 3140 3145 3150
 Glu Ala Thr Gln Leu Glu Gly Val Ala Arg Arg Met Thr Leu Ala Ser
 3155 3160 3165
 Ala Ser Val Glu Thr Asp Tyr Cys Leu Leu Leu Ala Leu Pro Cys Gly
 3170 3175 3180
 Arg Asp Gln Glu Asp Val Val Ser Gln Thr Glu Ser Leu Lys Ala Ala
 3185 3190 3195 3200
 Phe Ile Thr Tyr Leu Gln Ala Lys Gln Ala Ala Gly Ile Ile Asn Val
 3205 3210 3215
 Pro Asn Pro Gly Ser Asn Gln Pro Ala Tyr Val Leu Gln Ile Phe Pro
 3220 3225 3230
 Pro Cys Glu Phe Ser Glu Ser His Leu Ser Arg Leu Ala Pro Asp Leu
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 3250 3255 3260
 Ser Val
 3265

<210> 4511
 <211> 1375
 <212> DNA
 <213> Homo sapiens

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 gaaggtccca ttcagtaccg agatgaagaa gatgaagatg aaagctatca gagtgcactc
 240
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 300
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 360
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 420
 gaacaacgca atatattgca acctaaaaat gaagctgatc gtcaggcaga aaaacgagaa
 480
 attaaacgtc ggctcactag aaagctcagt caaaggccaa ctgtcgctga actccttgcc
 540
 aggaagattc tgaggtttta tgaatatgta gaggtaacag atgctcaaga ttatgaccgg
 600
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 660
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 720

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 780
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 840
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 960
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 1080
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 1200
 tctgataaaa gagtctctac ctccagggaa agccttctta ccacactggc atatcagatg
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<210> 4512

<211> 244

<212> PRT

<213> Homo sapiens

<400> 4512

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			20				25					30			
Glu	Glu	Met	Thr	Pro	Thr	Ser	Val	Ile	Pro	Lys	Leu	Pro	Gln	Cys	Leu
		35				40					45				
Arg	Glu	Glu	Glu	Glu	Lys	Glu	Ser	Asp	Ser	Asp	Ser	Glu	Gly	Pro	Ile
		50			55					60					
Gln	Tyr	Arg	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Ser	Tyr	Gln	Ser	Ala	Leu
65				70				75						80	
Ala	Asn	Lys	Val	Lys	Arg	Lys	Asp	Thr	Leu	Ala	Met	Lys	Leu	Asn	His
			85				90						95		
Arg	Pro	Ser	Glu	Pro	Glu	Leu	Asn	Leu	Asn	Ser	Trp	Pro	Cys	Lys	Ser
		100					105					110			
Lys	Glu	Glu	Trp	Asn	Glu	Ile	Arg	His	Gln	Ile	Gly	Asn	Thr	Leu	Ile
		115				120					125				
Arg	Arg	Leu	Ser	Gln	Arg	Pro	Thr	Pro	Glu	Glu	Leu	Glu	Gln	Arg	Asn
		130				135					140				
Ile	Leu	Gln	Pro	Lys	Asn	Glu	Ala	Asp	Arg	Gln	Ala	Glu	Lys	Arg	Glu
145				150					155					160	
Ile	Lys	Arg	Arg	Leu	Thr	Arg	Lys	Leu	Ser	Gln	Arg	Pro	Thr	Val	Ala
			165				170						175		
Glu	Leu	Leu	Ala	Arg	Lys	Ile	Leu	Arg	Phe	Asn	Glu	Tyr	Val	Glu	Val
		180					185					190			
Thr	Asp	Ala	Gln	Asp	Tyr	Asp	Arg	Arg	Ala	Asp	Lys	Pro	Trp	Thr	Lys

	195		200		205										
Leu	Thr	Pro	Ala	Asp	Lys	Ala	Ala	Ile	Arg	Lys	Glu	Leu	Asn	Glu	Phe
	210		215		220										
Lys	Ser	Ser	Glu	Met	Glu	Val	His	Glu	Glu	Ser	Lys	His	Phe	Thr	Arg
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Tyr	His	Arg	Pro												

<210> 4513
 <211> 545
 <212> DNA
 <213> Homo sapiens

<400> 4513
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 180
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 240
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 360
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 420
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 540
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 545

<210> 4514
 <211> 122
 <212> PRT
 <213> Homo sapiens

Met	Val	Thr	Arg	Leu	Tyr	Asp	Gly	Met	Arg	Arg	Val	Asp	Leu	Thr	Gly
1				5				10					15		
Lys	Ala	Lys	Gly	Pro	Ser	Glu	Asn	Val	Ser	Gln	Glu	Gln	Phe	Thr	Ala
		20					25					30			
Ser	Met	Ser	His	Leu	Leu	Lys	Gly	Asn	Ser	Glu	Glu	Lys	Ser	Leu	Met
	35					40						45			
Ile	Met	Lys	Met	Ile	Ser	Ala	Thr	Glu	Gly	Pro	Val	Lys	Ala	Arg	Glu
	50				55					60					
Val	Gln	Lys	Phe	Thr	Glu	Asp	Leu	Val	Gly	Ser	Val	Val	His	Val	Leu
65				70				75						80	
Ser	His	Arg	Gln	Glu	Leu	Arg	Gly	Trp	Thr	Gly	Lys	Glu	Ala	Pro	Gly
			85				90						95		
Pro	Asn	Pro	Arg	Val	Gln	Val	Leu	Thr	Ala	Gln	Leu	Leu	Ser	Asp	Met

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Lys	Leu	Gln	Gly	Lys	Cys	Ala	Trp	Thr	Arg
	115						120		

<210> 4515
 <211> 3207
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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<210> 4516

<211> 901

<212> PRT

<213> Homo sapiens

<400> 4516

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			20					25					30		
Leu	Gly	Gly	Ser	Val	Arg	Leu	Gly	Ala	Leu	Leu	Pro	Arg	Ala	Pro	Leu
		35					40					45			
Ala	Arg	Ala	Arg	Ala	Arg	Ala	Ala	Leu	Ala	Arg	Ala	Ala	Leu	Ala	Pro
	50					55				60					
Arg	Leu	Pro	His	Asn	Leu	Ser	Leu	Glu	Leu	Val	Val	Ala	Ala	Pro	Pro
65				70						75				80	
Ala	Arg	Asp	Pro	Ala	Ser	Leu	Thr	Arg	Gly	Leu	Cys	Gln	Ala	Leu	Val
				85					90					95	
Pro	Pro	Gly	Val	Ala	Ala	Leu	Leu	Ala	Phe	Pro	Glu	Ala	Arg	Pro	Glu
			100					105					110		
Leu	Leu	Gln	Leu	His	Phe	Leu	Ala	Ala	Ala	Thr	Glu	Thr	Pro	Val	Leu
		115					120					125			
Ser	Leu	Leu	Arg	Arg	Glu	Ala	Arg	Ala	Pro	Leu	Gly	Ala	Pro	Asn	Pro
	130					135					140				
Phe	His	Leu	Gln	Leu	His	Trp	Ala	Ser	Pro	Leu	Glu	Thr	Leu	Leu	Asp
145				150						155				160	
Val	Leu	Val	Ala	Val	Leu	Gln	Ala	His	Ala	Trp	Glu	Asp	Val	Gly	Leu
			165					170						175	
Ala	Leu	Cys	Arg	Thr	Gln	Asp	Pro	Gly	Gly	Leu	Val	Ala	Leu	Trp	Thr
			180					185					190		
Ser	Arg	Ala	Gly	Arg	Pro	Pro	Gln	Leu	Val	Leu	Asp	Leu	Ser	Arg	Arg
	195					200						205			
Asp	Thr	Gly	Asp	Ala	Gly	Leu	Arg	Ala	Arg	Leu	Ala	Pro	Met	Ala	Ala
	210					215					220				
Pro	Val	Gly	Gly	Glu	Ala	Pro	Val	Pro	Ala	Ala	Val	Leu	Leu	Gly	Cys
225				230						235				240	
Asp	Ile	Ala	Arg	Ala	Arg	Arg	Val	Leu	Glu	Ala	Val	Pro	Pro	Gly	Pro
			245						250					255	
His	Trp	Leu	Leu	Gly	Thr	Pro	Leu	Pro	Pro	Lys	Ala	Leu	Pro	Thr	Ala
		260						265					270		
Gly	Leu	Pro	Pro	Gly	Leu	Leu	Ala	Leu	Gly	Glu	Val	Ala	Arg	Pro	Pro
	275					280						285			
Leu	Glu	Ala	Ala	Ile	His	Asp	Ile	Val	Gln	Leu	Val	Ala	Arg	Ala	Leu

290		295		300
Gly Ser Ala Ala Gln Val Gln Pro Lys Arg Ala Leu Leu Pro Ala Pro				
305		310		315
Val Asn Cys Gly Asp Leu Gln Pro Ala Gly Pro Glu Ser Pro Gly Arg				320
	325		330	335
Phe Leu Ala Arg Phe Leu Ala Asn Thr Ser Phe Gln Gly Arg Thr Gly				
	340		345	350
Pro Val Trp Val Thr Gly Ser Ser Gln Val His Met Ser Arg His Phe				
	355		360	365
Lys Val Trp Ser Leu Arg Arg Asp Pro Arg Gly Ala Pro Ala Trp Ala				
	370		375	380
Thr Val Gly Ser Trp Arg Tyr Gly Gln Leu Asp Leu Glu Pro Gly Gly				
385		390		395
Ala Ser Ala Trp Pro Pro Pro Pro Gln Gly Ala Gln Val Arg Pro Lys				
	405		410	415
Leu Arg Val Val Thr Leu Leu Glu His Pro Phe Val Phe Ala Arg Asp				
	420		425	430
Pro Asp Glu Asp Gly Gln Cys Pro Ala Gly Gln Leu Cys Leu Asp Pro				
	435		440	445
Gly Thr Asn Asp Ser Ala Thr Leu Asp Ala Leu Phe Ala Ala Leu Ala				
	450		455	460
Asn Gly Ser Ala Pro Arg Ala Leu Arg Lys Cys Cys Tyr Gly Tyr Cys				
465		470		475
Ile Asp Leu Leu Glu Arg Leu Ala Glu Asp Thr Pro Phe Asp Phe Glu				
	485		490	495
Leu Tyr Leu Val Gly Asp Gly Lys Tyr Gly Ala Leu Arg Asp Gly Arg				
	500		505	510
Trp Thr Gly Leu Val Gly Asp Leu Leu Ala Gly Arg Ala His Met Ala				
	515		520	525
Val Thr Ser Phe Ser Ile Asn Ser Ala Arg Ser Gln Val Val Asp Phe				
	530		535	540
Thr Ser Pro Phe Phe Ser Thr Ser Leu Gly Ile Met Val Arg Ala Arg				
545		550		555
Asp Thr Ala Ser Pro Ile Gly Ala Phe Met Trp Pro Leu His Trp Ser				
	565		570	575
Thr Trp Leu Gly Val Phe Ala Ala Leu His Leu Thr Ala Leu Phe Leu				
	580		585	590
Thr Val Tyr Glu Trp Arg Ser Pro Tyr Gly Leu Thr Pro Arg Gly Arg				
	595		600	605
Asn Arg Ser Thr Val Phe Ser Tyr Ser Ser Ala Leu Asn Leu Cys Tyr				
	610		615	620
Ala Ile Leu Phe Arg Arg Thr Val Ser Ser Lys Thr Pro Lys Cys Pro				
625		630		635
Thr Gly Arg Leu Leu Met Asn Leu Trp Ala Ile Phe Cys Leu Leu Val				
	645		650	655
Leu Ser Ser Tyr Thr Ala Asn Leu Ala Ala Val Met Val Gly Asp Lys				
	660		665	670
Thr Phe Glu Glu Leu Ser Gly Ile His Asp Pro Lys Leu His His Pro				
	675		680	685
Ala Gln Gly Phe Arg Phe Gly Thr Val Trp Glu Ser Ser Ala Glu Ala				
	690		695	700
Tyr Ile Lys Lys Ser Phe Pro Asp Met His Ala His Met Arg Arg His				
705		710		715
Ser Ala Pro Thr Thr Pro Arg Gly Val Ala Met Leu Thr Ser Asp Pro				720

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<211> 2275
<212> DNA
<213> Homo sapiens
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120
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420
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<211> 650
 <212> PRT
 <213> Homo sapiens

<400> 4518

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              420              425              430
Asp Pro Leu His Asp Leu Ser Phe Asp Asn Ser Asp Leu Val Met Leu
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Lys Ser Leu Leu Ala Gly Leu Ser Leu Pro Ser Arg Asp Asp Arg Thr
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465              470              475              480
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Met Ala Pro Tyr Met Lys Arg Leu Ser Arg Gly Gln Thr Val Glu Gly
              500              505              510
Glu Ser Gly Pro Ala Ser Pro Thr Pro Asp Leu Leu Glu Val Leu Ser
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Asp Ile Asp Glu Met Ser Arg Arg Arg Pro Glu Ile Leu Ser Phe Phe
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Ser Thr Asn Leu Gln Arg Leu Met Ser Ser Ala Glu Glu Cys Cys Arg
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Ile Ala Ala Ala Phe Leu Pro Thr Phe Met Tyr Cys Leu Gly Ser Gln
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Asp Phe Glu Val Val Gln Thr Ala Leu Arg Asn Leu Pro Glu Tyr Ala
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<210> 4519
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 <212> DNA
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<211> 617

<212> PRT

<213> Homo sapiens

<400> 4520

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Glu	Cys	Ile	Lys	Gly	Glu	Glu	Gly	Ile	Gln	Val	Arg	Glu	Ile	Ala	Cys
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Gln	Asp	Cys	Ile	Val	Ser	Glu	Phe	Ser	Ala	Trp	Ser	Glu	Cys	Ser	Lys
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			165					170						175	
Cys	Gln	Ser	Ser	Pro	Cys	Glu	Ala	Glu	Glu	Leu	Arg	Tyr	Ser	Leu	His
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Thr Glu Cys Arg Val Asp Pro Leu Leu Ser Gln Gln Asp Lys Arg Arg				
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Gly Asn Gln Thr Ala Leu Cys Gly Gly Gly Ile Gln Thr Arg Glu Val				
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Tyr Cys Val Gln Ala Asn Glu Asn Leu Leu Ser Gln Leu Ser Thr His				
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Cys Glu Val Ser Pro Trp Ser Ala Trp Gly Pro Cys Thr Tyr Glu Asn				
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Cys Asn Asp Pro Gln Gly Lys Lys Gly Phe Lys Leu Arg Lys Arg Arg				
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		485		490
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Lys Ala Val Arg Leu Gly Asp Cys Glu Pro Asp Asn Gly Lys Glu Cys				
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Gly Pro Gly Thr Gln Val Gln Glu Val Val Cys Ile Asn Ser Asp Gly				
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Glu Glu Val Asp Arg Gln Leu Cys Arg Asp Ala Ile Phe Pro Ile Pro				
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Val Ala Cys Asp Ala Pro Cys Pro Lys Asp Cys Val Leu Ser Thr Trp				
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<212> DNA

<213> Homo sapiens

<400> 4521

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His	Thr	Glu	Thr	Ala	Ser	Ser	Phe	Gln	Pro	Ser	Pro	Phe	Ser	Ala	Asp
			35				40					45			
Phe	Glu	Leu	Gln	Ile	Ser	Leu	Leu	Tyr	Leu	Glu	Ser	Pro	Ile	Ser	Leu
			50			55					60				
Gln	Glu	Phe	Ala	Leu	Ser	Phe	Ile	Ile	Ile	Leu	Val	Tyr	Val	Leu	Asp
65					70					75				80	
Trp	Ala	Ala	Ile	Thr	Arg	Cys	His	Arg	Leu	Ser	Gly	Leu	Asn	Asn	Lys
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His	Ser	Tyr	Pro	Thr	Val	Thr	Glu	Ala	Glu	Lys	Pro	Gly	Val	Lys	Val
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<213> Homo sapiens

<400> 4524

Ala Leu Tyr Ile Leu Val Cys Thr Arg Asp Ser Ser Ala Arg Leu Leu
 1 5 10 15
 Gly Lys Thr Lys Asp Thr Pro Arg Leu Ser Leu Xaa Leu Val Ile Leu
 20 25 30
 Gly Val Ile Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp
 35 40 45
 Glu Ala Leu Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Phe
 50 55 60
 Leu Gly Asp Leu Arg Lys Leu Ile Thr Asp Asp Phe Val Lys Gln Lys
 65 70 75 80
 Tyr Leu Glu Tyr Lys Lys Ile Pro Asn Ser Asn Pro Pro Glu Tyr Glu
 85 90 95
 Phe Leu Trp Gly Leu Arg Ala Arg His Glu Thr Ser Lys Met Arg Val
 100 105 110
 Leu Arg Phe Ile Ala Gln Asn Gln Asn Arg Asp Pro Arg Glu Trp Lys
 115 120 125
 Ala His Phe Leu Glu Ala Val Asp Asp Ala Phe Lys Thr Met Asp Val
 130 135 140
 Asp Met Ala Glu Glu His Ala Arg Ala Gln Met Arg Ala Gln Met Asn
 145 150 155 160
 Ile Gly Asp Glu Ala Leu Ile Gly Arg Trp Ser Trp Asp Asp Ile Gln
 165 170 175
 Val Glu Leu Leu Thr Trp Asp Glu Asp Gly Asp Phe Gly Asp Ala Trp
 180 185 190
 Ala Arg Ile Pro Phe Ala Phe Trp Ala Arg Tyr His Gln Tyr Ile Leu
 195 200 205
 Asn Ser Asn Arg Ala Asn Arg Arg Ala Thr Trp Arg Ala Gly Val Ser
 210 215 220
 Ser Gly Thr Asn Gly Gly Ala Ser Thr Ser Val Leu Asp Gly Pro Ser
 225 230 235 240
 Thr Ser Ser Thr Ile Arg Thr Arg Asn Ala Ala Arg Ala Gly Ala Ser
 245 250 255
 Phe Phe Ser Trp Ile Gln
 260

<210> 4525

<211> 1731

<212> DNA

<213> Homo sapiens

<400> 4525

nngaaccatg gcattctcca ggctctgacc acagaagctt atgaatggga gccacgtgtt
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 gtgagtacag aggtggtcag agcccaagaa gaatgggaag ctgtggacac catccagcca
 120
 gagacagggga gccaaactag ctcagagcag cctgggcagc taatctcctt cagtgaggcc
 180
 ctgcagcact tccagactgt ggacctttcc cccttcaaga aaagaatcca gccaaactatt
 240
 cgaaggactg ggctcgccgc cctccgacac tacctcttcg ggctccaaa gctccaccag
 300

cgcccttcggg aagaaagga cttggctctg accattgctc agtgtggcct ggatagccaa
 360
 gaccagtgct atggccgagt cctccagacc atctataaga agctgaccgg ctccaagttt
 420
 gactgtgccc ttcattgaaa ccactgggag gacctgggct ttcagggagc gaatccagcc
 480
 acagacctga gaggcgcagg cttccttgcc ctctgcacac tgctctacct agtgatggac
 540
 tcaaagacct tgccgatggc gcaggagatt ttccgctgt ctgctacca catccagcaa
 600
 ttccctttct gtttgatgtc cgtgaacac acccacattg ccatccaggc cttgagagag
 660
 gagtgtctct ccagagagtg taatcggcag cagaaggtea tccccgtggg gaacagcttc
 720
 tatgccgcca cattcctcca cctcgcacat gtctggagga cacagcggaa gaccatctca
 780
 gactcgggct ttgtcctcaa aggtgtgtc tttcttctgg ggaggcctag gctgaatgca
 840
 cagtgtccca ggtccagaga gcccaagggt gtgtctagac tggttttggc tgcagttctt
 900
 ccccatccac actttctcaa attccagctt accaaaatct ccatcacca cccctggag
 960
 tctgctagtt ctcccttctc tgccctgact gtgcgccctt tctggtctta tacttatgac
 1020
 aagcatatat tctgatcaaa aattgggagc cagggtccaa tagttggact attcaaagtt
 1080
 gcaattgtgc agacaaggta gagtgtgtgg tccctgtggc tgtagctggc tccctagcct
 1140
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 1200
 gggggtactc cctagagctg ctaggcttga ggccttgact gttgtgtcac ccagagcccc
 1260
 ctcaagcctt ctgtcctcca attctctctg ttgcagagtt ggaagtattg gccaagaaga
 1320
 gccacggcg ggctgtcaa gacctggag ctgtacttgg ccagggtgtc aaagggacag
 1380
 gcctccttgt tgggagcaca gaagtgtat gggccagaag cccctccctt caaggatctc
 1440
 accttcacag gtgagagtga cctgcagtct cactcatccg aaggcgtatg gctgatctga
 1500
 cctccgagat gaatggaggc ttaaaggctg agctgcaggg gctttcaggg ggtcagtgga
 1560
 gccatgtcag gagcctggcc aggcgcacc ccttgctgtc tcagcagatg ggatatagga
 1620
 agctcctggg cttagctgtg ggaagccaag taccctcacc ggcatgggac atgaggggca
 1680
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 1731

<210> 4526

<211> 344

<212> PRT

<213> Homo sapiens

<400> 4526

Xaa Asn His Gly Ile Leu Gln Ala Leu Thr Thr Glu Ala Tyr Glu Trp
 1 5 10 15
 Glu Pro Arg Val Val Ser Thr Glu Val Val Arg Ala Gln Glu Glu Trp
 20 25 30
 Glu Ala Val Asp Thr Ile Gln Pro Glu Thr Gly Ser Gln Ala Ser Ser
 35 40 45
 Glu Gln Pro Gly Gln Leu Ile Ser Phe Ser Glu Ala Leu Gln His Phe
 50 55 60
 Gln Thr Val Asp Leu Ser Pro Phe Lys Lys Arg Ile Gln Pro Thr Ile
 65 70 75 80
 Arg Arg Thr Gly Leu Ala Ala Leu Arg His Tyr Leu Phe Gly Pro Pro
 85 90 95
 Lys Leu His Gln Arg Leu Arg Glu Glu Arg Asp Leu Val Leu Thr Ile
 100 105 110
 Ala Gln Cys Gly Leu Asp Ser Gln Asp Pro Val His Gly Arg Val Leu
 115 120 125
 Gln Thr Ile Tyr Lys Lys Leu Thr Gly Ser Lys Phe Asp Cys Ala Leu
 130 135 140
 His Gly Asn His Trp Glu Asp Leu Gly Phe Gln Gly Ala Asn Pro Ala
 145 150 155 160
 Thr Asp Leu Arg Gly Ala Gly Phe Leu Ala Leu Leu His Leu Leu Tyr
 165 170 175
 Leu Val Met Asp Ser Lys Thr Leu Pro Met Ala Gln Glu Ile Phe Arg
 180 185 190
 Leu Ser Arg His His Ile Gln Gln Phe Pro Phe Cys Leu Met Ser Val
 195 200 205
 Asn Ile Thr His Ile Ala Ile Gln Ala Leu Arg Glu Glu Cys Leu Ser
 210 215 220
 Arg Glu Cys Asn Arg Gln Gln Lys Val Ile Pro Val Val Asn Ser Phe
 225 230 235 240
 Tyr Ala Ala Thr Phe Leu His Leu Ala His Val Trp Arg Thr Gln Arg
 245 250 255
 Lys Thr Ile Ser Asp Ser Gly Phe Val Leu Lys Gly Val Leu Phe Leu
 260 265 270
 Leu Gly Arg Pro Arg Leu Asn Ala Gln Cys Pro Arg Ser Arg Glu Pro
 275 280 285
 Lys Val Val Ala Arg Leu Val Leu Ala Ala Val Leu Pro His Pro His
 290 295 300
 Phe Leu Lys Phe Gln Leu Thr Lys Ile Ser Ile Thr His Pro Leu Glu
 305 310 315 320
 Ser Ala Ser Ser Pro Phe Ser Ala Leu Thr Val Ala Leu Phe Trp Ser
 325 330 335
 Tyr Thr Tyr Asp Lys His Ile Phe
 340

<210> 4527

<211> 885

<212> DNA

<213> Homo sapiens

<400> 4527

nntttttttt tttttttttt tttttttttt tttttttttt tttttttttg cagagacatg
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gctgcattta ttgttcccag cccggcgaga aggtgttccc agaaagggttc cttgggtcac
 120
 ctgccccacc agccttggtt ctgggctgcc atgtccccac gggggcagga gagaggcaca
 180
 agtcacagtc aggcaaggga gcctcagcgt cctgggcggt ggctgttggg gtccctccag
 240
 tcttcacctg ggaccctcgg ccaggctggg acagcatcca ggaggcgagg ctgcatggtc
 300
 cagcgggtggg tgcagggtggc aacaggctcgg cgggctgtgc aggttcctaaa aggagctctc
 360
 ggggttggcac tgggtgagac cagccccggg gccagcaggg gaatgagcgg tggagcaggg
 420
 gggtgtcggg cactgggggtg ggccccatct cctgtccttc cctcatgggt gctggaaggg
 480
 ccgcctccct ggctcagcat catctcagat tccgggactc aaacaccgtc tcctcgtcgc
 540
 tgtccagcga ggccatctcc gtgggggtcct cagtgttggc gaggaggccg tategcctcc
 600
 gctgaggctt cttcaacctt aacgcccggg tcaggaagta gagcgcggtc aggccgcaga
 660
 agcccaggat cacgtagaag gagcgcgta gcgccgagcc cgacgcccc ggcggaacgcg
 720
 tgtgcgtgct gttgtgtggc gcgcccggt ggctcccggt cgtcacggcc ggcggcggcg
 780
 acaacgtgac ctggcggggg cagcgggcag cctcttcggc accgcacggc agcgccgcca
 840
 gcagcagcgc cagcaggagc agcagcagcg gcggctgcag cacgc
 885

<210> 4528

<211> 206

<212> PRT

<213> Homo sapiens

<400> 4528

Xaa	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe
1				5				10						15	
Cys	Arg	Asp	Met	Ala	Ala	Phe	Ile	Val	Pro	Ser	Pro	Ala	Arg	Arg	Cys
			20					25					30		
Ser	Gln	Lys	Gly	Ser	Leu	Gly	His	Leu	Pro	Thr	Gln	Pro	Trp	Leu	Trp
		35					40					45			
Ala	Ala	Met	Ser	Pro	Arg	Gly	Gln	Glu	Arg	Gly	Thr	Ser	His	Ser	Gln
		50					55				60				
Ala	Arg	Glu	Pro	Gln	Arg	Pro	Gly	Arg	Trp	Leu	Leu	Gly	Ser	Leu	Gln
65					70				75					80	
Ser	Ser	Pro	Gly	Thr	Leu	Gly	Gln	Ala	Gly	Thr	Ala	Ser	Arg	Arg	Arg
				85				90					95		
Gly	Cys	Met	Val	Gln	Arg	Trp	Val	Gln	Val	Ala	Thr	Gly	Arg	Arg	Ala
			100					105					110		
Val	Gln	Val	Pro	Lys	Gly	Ala	Leu	Gly	Leu	Ala	Leu	Gly	Glu	Thr	Ser
		115					120					125			
Pro	Gly	Ala	Ser	Arg	Gly	Met	Ser	Gly	Gly	Ala	Gly	Gly	Cys	Trp	Ala
		130				135					140				
Leu	Gly	Trp	Ala	Pro	Ser	Pro	Val	Leu	Pro	Ser	Trp	Leu	Leu	Glu	Gly

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145          150          155          160
Pro Pro Pro Trp Leu Ser Ile Ile Ser Asp Ser Gly Thr Gln Thr Pro
          165          170          175
Ser Pro Arg Arg Cys Pro Ala Arg Pro Ser Pro Trp Gly Pro Gln Cys
          180          185          190
Trp Arg Gly Gly Arg Ile Ala Ser Ala Glu Ala Ser Ser Thr
          195          200          205

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<210> 4529
 <211> 546
 <212> DNA
 <213> Homo sapiens

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<400> 4529
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gtggccgccc cctaagctgc agccgccgga gccgcagaaa caagaggccg agccgtgtcg
120
aagatggagg agaaacctc agggcccatc ccggacatgc tggccactgc agagcccagc
180
tccagtgaga ccgacaagga ggtgttgtcc ccggctgtgc cagctgcagc cccctcctcc
240
tccatgtcgg aggagccagg ccctgagcag gcagccacac cgccagtggg gaacgtggag
300
gggctggagg gatgcagcag ggctcctccc cagccccaga cagctgccag tctggccccg
360
gaccagccc tggcctgacc agcatagtct ccgggaccag cgaggacctg cggcctccca
420
gacgacgccc acctccaggg aagcaaatac cttgctccag ccctggctgc tgcctcagtt
480
ttcccagcgt ccgtgacctg gcacagcatc tgccaacca ctgcccgccg agccctatgc
540
agtctc
546

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<210> 4530
 <211> 84
 <212> PRT
 <213> Homo sapiens

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<400> 4530
Met Glu Glu Lys Pro Ser Gly Pro Ile Pro Asp Met Leu Ala Thr Ala
1          5          10          15
Glu Pro Ser Ser Ser Glu Thr Asp Lys Glu Val Leu Ser Pro Ala Val
          20          25          30
Pro Ala Ala Ala Pro Ser Ser Ser Met Ser Glu Glu Pro Gly Pro Glu
          35          40          45
Gln Ala Ala Thr Pro Pro Val Gly Asn Val Glu Gly Leu Glu Gly Cys
          50          55          60
Ser Arg Ala Pro Pro Gln Pro Gln Thr Ala Ala Ser Leu Ala Pro Asp
65          70          75          80
Pro Ala Leu Ala

```

<210> 4531
<211> 1414
<212> DNA
<213> Homo sapiens

<400> 4531
nnacgtggc ctccgagcag ctcagggcgc ccttgaaagt tcttgatct gcgggttatg
60
gccggtccct tgcagggcgg tggggcccgg gccctggacc tactccgggg cctgccgcgt
120
gtgagcctgg ccaacttaaa gccgaatccc ggctccaaga aaccggagag aagaccaaga
180
ggtcggagaa gaggtagaaa atgtggcaga ggccataaag gagaaaggca aagaggaacc
240
cggccccgct tgggctttga gggaggccag actccatttt acatccgaat cccaaaatac
300
gggtttaacg aaggacatag tttcagacgc cagtataagc ctttgagtct caatagactg
360
cagtatctta ttgatttggg tcgtgttgat cctagtcaac ctattgactt aaccagctt
420
gtcaatggga gaggtgtgac catccagcca cttaaaaggg attatggtgt ccagctggtt
480
gaggagggtg ctgacacctt tacggcaaaa gttaatatg aagtacagtt ggcttcagaa
540
ctagctattg ctgccattga aaaaaatggt ggtgttggtta ctacagcctt ctatgatcca
600
agaagtctgg acattgtatg caaacctggt ccattctttc ttcgtggaca acccattcca
660
aaaagaatgc ttccaccaga agaactggta ccatattaca ctgatgcaaa gaaccgtggg
720
tacctggcgg atcctgccaa atttcttgaa gcacgacttg aactcgccag gaagtatggt
780
tatatcttac ctgatatcac taaagatgaa ctcttcaaaa tgctctgtac taggaaggat
840
ccaaggcaga ttttctttgg tcttgctcca ggatgggtgg tgaatatggc cgataagaaa
900
atcctaaaac ctacagatga aaatctcctt aagtattata cctcatgaat tcccgtccaa
960
ggaagcagag ttgttaaaga gtactggaat aggggctgaa ggatctatat tcccttattg
1020
cattttcctt atgtataatt ttccagatgg tgatgttact tttcagtgt ctcatatgtc
1080
tcattttcat ctaaaattaa atggcaggaa acaaggactg catagagaaa ctgagtctgt
1140
gtgggttctg tctcaaagat acaaactccc tgatagtcta tggaaggaaa atgacaacta
1200
ttttaagaata tttctagttt gttttttcag tgatcttttc atccaggcct tgttactgtt
1260
acagatcaga atgaaatgca caagtggaat gggattgacc tgtaggcctg ctctgccgag
1320
atgagagcag atggaatgag ttggtgaccc ctcttaatct gtagcctcag ggaaacacgg
1380
ctacccaatg ccaagatggt aaaccctcac gcgt
1414

<210> 4532
 <211> 296
 <212> PRT
 <213> Homo sapiens

<400> 4532
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 Arg Gly Leu Pro Arg Val Ser Leu Ala Asn Leu Lys Pro Asn Pro Gly
 20 25 30
 Ser Lys Lys Pro Glu Arg Arg Pro Arg Gly Arg Arg Arg Gly Arg Lys
 35 40 45
 Cys Gly Arg Gly His Lys Gly Glu Arg Gln Arg Gly Thr Arg Pro Arg
 50 55 60
 Leu Gly Phe Glu Gly Gly Gln Thr Pro Phe Tyr Ile Arg Ile Pro Lys
 65 70 75 80
 Tyr Gly Phe Asn Glu Gly His Ser Phe Arg Arg Gln Tyr Lys Pro Leu
 85 90 95
 Ser Leu Asn Arg Leu Gln Tyr Leu Ile Asp Leu Gly Arg Val Asp Pro
 100 105 110
 Ser Gln Pro Ile Asp Leu Thr Gln Leu Val Asn Gly Arg Gly Val Thr
 115 120 125
 Ile Gln Pro Leu Lys Arg Asp Tyr Gly Val Gln Leu Val Glu Glu Gly
 130 135 140
 Ala Asp Thr Phe Thr Ala Lys Val Asn Ile Glu Val Gln Leu Ala Ser
 145 150 155 160
 Glu Leu Ala Ile Ala Ala Ile Glu Lys Asn Gly Gly Val Val Thr Thr
 165 170 175
 Ala Phe Tyr Asp Pro Arg Ser Leu Asp Ile Val Cys Lys Pro Val Pro
 180 185 190
 Phe Phe Leu Arg Gly Gln Pro Ile Pro Lys Arg Met Leu Pro Pro Glu
 195 200 205
 Glu Leu Val Pro Tyr Tyr Thr Asp Ala Lys Asn Arg Gly Tyr Leu Ala
 210 215 220
 Asp Pro Ala Lys Phe Pro Glu Ala Arg Leu Glu Leu Ala Arg Lys Tyr
 225 230 235 240
 Gly Tyr Ile Leu Pro Asp Ile Thr Lys Asp Glu Leu Phe Lys Met Leu
 245 250 255
 Cys Thr Arg Lys Asp Pro Arg Gln Ile Phe Phe Gly Leu Ala Pro Gly
 260 265 270
 Trp Val Val Asn Met Ala Asp Lys Lys Ile Leu Lys Pro Thr Asp Glu
 275 280 285
 Asn Leu Leu Lys Tyr Tyr Thr Ser
 290 295

<210> 4533
 <211> 968
 <212> DNA
 <213> Homo sapiens

<400> 4533
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 120
 gcgcggcggc cccgcgcagc catggactgg ctcattggga agtccaaagc caagcccaat
 180
 ggcaagaagc cgcctgcgga ggagaggaag gcctacctgg agcctgagca caccaaggcc
 240
 aggatcaccg acttcagtt caaggagctg gtggtgctgc cccgggagat cgacctcaac
 300
 gagtggctgg ccagcaacac aacaacattt ttccaccaca tcaacctgca gtatagcaca
 360
 atctcggagt tctgcacagg agagacgtgt cagacgatgg ccgtgtgcaa cacacagtac
 420
 tactggtatg acgagcgggg gaagaaggct aagtgcacgg cccacagta cgttgacttc
 480
 gtcattgagct ccgtgcagaa gctggtgacg gatgaggacg tgttccccac aaaatacggc
 540
 agagaattcc ccagctcctt tgagtccctg gtgaggaaga tctgcagaca cctgttccac
 600
 gtgctggcac acattctactg ggcccacttc aaggagacgc tggccctgga gctgcacgga
 660
 cacttgaaca cgctctactg ccacttcatt ctctttgctc gggagttcaa cctgctggac
 720
 ccaaagaga ccgccatcat ggacgacctc accgaggtgc tatgcagcgg ggccggcggg
 780
 gtccacagtg ggggcagtgg ggatggggcc ggcagcgggg gcccgggagc acagaaccac
 840
 gtgaaggaga gatgagcccc ccgggccgga caggggcaca cgtgtgcaaa gagacggtgg
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 960
 acacgcgt
 968

<210> 4534

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4534

Thr	Arg	Ala	Gln	His	Met	Cys	Ala	His	Ala	Asp	Ala	Gly	Glu	Asn	Thr
1				5				10					15		
His	His	Arg	Leu	Phe	Ala	His	Val	Cys	Pro	Cys	Pro	Asp	Ala	Gly	Ala
			20					25				30			
Glu	Ala	Asp	Arg	Val	Gly	Gln	Arg	Ala	Arg	Arg	Pro	Arg	Ala	Ala	Met
			35				40					45			
Asp	Trp	Leu	Met	Gly	Lys	Ser	Lys	Ala	Lys	Pro	Asn	Gly	Lys	Lys	Pro
			50				55				60				
Ala	Ala	Glu	Glu	Arg	Lys	Ala	Tyr	Leu	Glu	Pro	Glu	His	Thr	Lys	Ala
							70			75				80	
Arg	Ile	Thr	Asp	Phe	Gln	Phe	Lys	Glu	Leu	Val	Val	Leu	Pro	Arg	Glu
				85				90					95		
Ile	Asp	Leu	Asn	Glu	Trp	Leu	Ala	Ser	Asn	Thr	Thr	Thr	Phe	Phe	His
			100					105					110		
His	Ile	Asn	Leu	Gln	Tyr	Ser	Thr	Ile	Ser	Glu	Phe	Cys	Thr	Gly	Glu

```

      115              120              125
Thr Cys Gln Thr Met Ala Val Cys Asn Thr Gln Tyr Tyr Trp Tyr Asp
      130              135              140
Glu Arg Gly Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe
      145              150              155              160
Val Met Ser Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro
      165              170              175
Thr Lys Tyr Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg
      180              185              190
Lys Ile Cys Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala
      195              200              205
His Phe Lys Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr
      210              215              220
Leu Tyr Val His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp
      225              230              235              240
Pro Lys Glu Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser
      245              250              255
Gly Ala Gly Gly Val His Ser Gly Gly Ser Gly Asp Gly Ala Gly Ser
      260              265              270
Gly Gly Pro Gly Ala Gln Asn His Val Lys Glu Arg
      275              280

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<210> 4535

<211> 473

<212> DNA

<213> Homo sapiens

<400> 4535

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cagtggcatg atcacagctc actgcaacct ctgcctccca ggttcaagca gttctctnngc
120
ctcagcctcc cgagtagctg ggattacagg cgtccgccac cacgcccggc taatttttgt
180
attttttagta gaaacggggt ttcaccatct cggccaggct ggtcttgaac tcttgacctc
240
atgatccatc cgccttggcc tcccaaagtg ctgggattac aggcattgagc taccgcgccc
300
ggccttggct gcagattaac gggaataacct cccttgggct tcttaggtga cactgtgata
360
ttcggtatga cctcccttgc tctattcctt ggaagaagta caggcactgg tcaagagtgc
420
ccgggaccca cattgcctgg ttttgaatcc cagcacctcc acatgttacg cgt
473

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<210> 4536

<211> 75

<212> PRT

<213> Homo sapiens

<400> 4536

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Arg Leu Phe Phe Phe Phe Phe Glu Met Glu Ser Arg Ser Val Thr
1          5          10          15
Gln Ala Gly Val Gln Trp His Asp His Ser Ser Leu Gln Pro Leu Pro

```

			20					25					30				
Pro	Arg	Phe	Lys	Gln	Phe	Ser	Xaa	Leu	Ser	Leu	Pro	Ser	Ser	Trp	Asp		
		35					40					45					
Tyr	Arg	Arg	Pro	Pro	Pro	Arg	Pro	Ala	Asn	Phe	Cys	Ile	Phe	Ser	Arg		
	50					55					60						
Asn	Gly	Val	Ser	Pro	Ser	Arg	Pro	Gly	Trp	Ser							
65					70					75							

<210> 4537

<211> 2811

<212> DNA

<213> Homo sapiens

<400> 4537

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120
ataaaacgtt ctgaactacc tctgcgaggt gacattgtct tctttcttca gaaggttcat
180
attccagaga gtatcttgat ttttcgggat gagattgacc tccatgcatt ataccaggct
240
ggccaactca cctcatcct tgtcgacat catatcttat ccaaaagtga cacagcccta
300
gaggagngca gtagcagagg tgctagacca tcgacccatc gagccgaaac actgccctcc
360
ctgnnccatg tttcagttga gctggtgggg tctgtgcta cctggtgac cgagagaatc
420
ctgcaggggg caccagagat cttggacagg caaactgcag cccttctgca tggaaccatc
480
atcctggact gtgtcaacat ggacctaaa attggaaagg caaccccaaa ggacagcaaa
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tatgtggaga aactagaggc ccttttccca gacctacca agagaaatga tatatttgat
600
tccctacaaa aggcaaagtt tgatgtatca ggactgacca ctgagcagat gctgagaaaa
660
gaccagaaga ctatctatag acaaggcgtc aaggtggcca ttagtgcaat atatatggat
720
ttggaggcct ttctgcagag gtctaacctc cttgcagatc tccatgcttt ctgccaggct
780
cacagctatg atgtcctggt tgccatgact atctttttca aactcacia tgagccagt
840
cggcagttgg ctattttctg tccccatgtg gcaactcaaa caacgatctg tgaagtctg
900
gaacgctccc actctccacc cctgaagctg acccctgcct caagtacca ccctaacctc
960
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1020
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1140
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1200

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2811

<210> 4538

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4538

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Glu Val Phe Val Pro Val Leu Asn Ile Lys Arg Ser Glu Leu Pro Leu
      35           40           45
Arg Gly Asp Ile Val Phe Phe Leu Gln Lys Val His Ile Pro Glu Ser
      50           55           60
Ile Leu Ile Phe Arg Asp Glu Ile Asp Leu His Ala Leu Tyr Gln Ala
65           70           75           80
Gly Gln Leu Thr Leu Ile Leu Val Asp His His Ile Leu Ser Lys Ser
      85           90           95
Asp Thr Ala Leu Glu Glu Xaa Ser Ser Arg Gly Ala Arg Pro Ser Thr
      100          105          110
His Arg Ala Glu Thr Leu Pro Ser Leu Xaa His Val Ser Val Glu Leu
      115          120          125
Val Gly Ser Cys Ala Thr Leu Val Thr Glu Arg Ile Leu Gln Gly Ala
      130          135          140
Pro Glu Ile Leu Asp Arg Gln Thr Ala Ala Leu Leu His Gly Thr Ile
145          150          155          160
Ile Leu Asp Cys Val Asn Met Asp Leu Lys Ile Gly Lys Ala Thr Pro
      165          170          175
Lys Asp Ser Lys Tyr Val Glu Lys Leu Glu Ala Leu Phe Pro Asp Leu
      180          185          190
Pro Lys Arg Asn Asp Ile Phe Asp Ser Leu Gln Lys Ala Lys Phe Asp
      195          200          205
Val Ser Gly Leu Thr Thr Glu Gln Met Leu Arg Lys Asp Gln Lys Thr
      210          215          220
Ile Tyr Arg Gln Gly Val Lys Val Ala Ile Ser Ala Ile Tyr Met Asp
225          230          235          240
Leu Glu Ala Phe Leu Gln Arg Ser Asn Leu Leu Ala Asp Leu His Ala
      245          250          255
Phe Cys Gln Ala His Ser Tyr Asp Val Leu Val Ala Met Thr Ile Phe
      260          265          270
Phe Asn Thr His Asn Glu Pro Val Arg Gln Leu Ala Ile Phe Cys Pro
      275          280          285
His Val Ala Leu Gln Thr Thr Ile Cys Glu Val Leu Glu Arg Ser His
      290          295          300
Ser Pro Pro Leu Lys Leu Thr Pro Ala Ser Ser Thr His Pro Asn Leu
305          310          315          320
His Ala Tyr Leu Gln Gly Asn Thr Gln Val Ser Arg Lys Lys Leu Leu
      325          330          335
Pro Leu Leu Gln Glu Ala Leu Ser Ala Tyr Phe Asp Ser Met Lys Ile
      340          345          350
Pro Ser Gly Gln Pro Glu Thr Ala Asp Val Ser Arg Glu Gln Val Asp
      355          360          365
Lys Glu Leu Asp Arg Ala Ser Asn Ser Leu Ile Ser Gly Leu Ser Gln

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      370              375              380
Asp Glu Glu Asp Pro Pro Leu Pro Pro Thr Pro Met Asn Ser Leu Val
385              390              395              400
Asp Glu Cys Pro Leu Asp Gln Gly Leu Pro Lys Leu Ser Ala Glu Ala
      405              410              415
Val Phe Glu Lys Cys Ser Gln Ile Ser Leu Ser Gln Ser Thr Thr Ala
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Ser Leu Ser Lys Lys
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<210> 4539
<211> 331
<212> DNA
<213> Homo sapiens

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120
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180
agcagaaaaag gaataactgt tcagagaaga agccgctgcc tttcctgggt gcctccatca
240
agcaagaaga ggctgtctcc agctgtcctt ttgcatccca agtacctgtg aaaagacaaa
300
gcagcagctc aaagtgtcac ccaccggctt g
331

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<210> 4540
<211> 99
<212> PRT
<213> Homo sapiens

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<400> 4540
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1      5      10      15
Thr Arg Ser Leu Gly Glu Asn Gln Arg Val Ile Asn Glu Leu Thr Trp
      20      25      30
Lys Leu Gln Gln Glu Gln Arg Gln Val Glu Glu Leu Arg Met Gln Leu
      35      40      45
Gln Lys Gln Lys Arg Asn Asn Cys Ser Glu Lys Lys Pro Leu Pro Phe
      50      55      60
Leu Ala Ala Ser Ile Lys Gln Glu Glu Ala Val Ser Ser Cys Pro Phe
65      70      75      80
Ala Ser Gln Val Pro Val Lys Arg Gln Ser Ser Ser Ser Lys Cys His
      85      90      95
Pro Pro Ala

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<210> 4541
<211> 452
<212> DNA
<213> Homo sapiens

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<400> 4541

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 120
 tccagtctga gaaccataaa aaatcttcac tccagacaca aagatgtctt tctcttgaag
 180
 ggagacataa ccatttgatc tcaaactcctg agctgctttt ggaacagatt tttcctgtaa
 240
 gttcttgccc tgcgtcttga tgacaatctg gacacaaatc caaaggctaa tgctaacagc
 300
 aaagcccaaa taaatgtaaa acctgtttat ccacaatgat attaaagggtg agaagagggtc
 360
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 420
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 452

<210> 4542

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4542

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Leu	Trp	Ile	Asn	Arg	Phe	Tyr	Ile	Tyr	Leu	Gly	Phe	Ala	Val	Ser	Ile
			20					25					30		
Ser	Leu	Trp	Ile	Cys	Val	Gln	Ile	Val	Ile	Lys	Thr	Gln	Gly	Lys	Asn
			35				40					45			
Leu	Gln	Glu	Lys	Ser	Val	Pro	Lys	Ala	Ala	Gln	Asp	Leu	Met	Thr	Asn
			50				55				60				
Gly	Tyr	Val	Ser	Leu	Gln	Glu	Lys	Asp	Ile	Phe	Val	Ser	Gly	Val	Lys
65					70					75				80	
Ile	Phe	Tyr	Gly	Ser	Gln	Thr	Gly	Thr	Ala	Lys	Gly	Phe	Ala	Thr	Val
				85					90					95	
Leu	Ala	Glu	Ala	Val	Thr	Ser	Leu	Asp	Leu	Pro	Val	Ala	Ile	Ile	Asn
				100				105					110		
Leu	Lys	Glu	Tyr	Asp	Pro	Asp	Asp	His	Leu	Ile	Glu	Glu	Val	Thr	Ser
			115				120						125		

<210> 4543

<211> 815

<212> DNA

<213> Homo sapiens

<400> 4543

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 120
 gaggccccgc gcaccaatgc tttgcacttt gcctcgcccg acaccctgcg ggccagagct
 180

cctctgccgc ccaccgggct aacccttcgc ggccctcacca ctcccagtg gctctgctta
 240
 tccggccact gactccggct cctcggaagc agggccaccc tcctgaaatg gcttggaacg
 300
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 360
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 420
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 480
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 660
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 720
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<210> 4544

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4544

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Gln	Ser	Glu	Pro	Ser	Ala	Leu	Pro	Gly	Leu	Asp	Leu	Phe	Leu	Asn	Ser
			20					25					30		
His	Lys	Leu	Gln	Gly	Ala	Ala	Ala	Val	Ser	Leu	Ala	Arg	His	Trp	Pro
		35				40						45			
Ile	Thr	Ser	Asn	Arg	Leu	Gly	Arg	Ala	Pro	Val	Glu	Ser	Pro	Val	Pro
	50					55					60				
Ser	His	Phe	Arg	Arg	Val	Ala	Leu	Leu	Pro	Arg	Ser	Arg	Ser	Gln	Trp
65					70					75				80	
Pro	Asp	Lys	Gln	Ser	His	Ser	Gly	Val	Val	Arg	Pro	Gly	Arg	Val	Ser
			85						90					95	
Pro	Val	Gly	Gly	Arg	Gly	Ala	Leu	Ala	Arg	Arg	Val	Ser	Gly	Glu	Ala
			100					105					110		
Lys	Cys	Lys	Ala	Leu	Val	Arg	Gly	Ala	Ser	Gly	Ser	His	Gly	Gly	Ala
		115					120					125			
Ala	Gly	Gln	Gly	Pro	Ala	Val	Thr	Arg	Ser	Pro	Ser	Ser	Leu	Cys	Leu
	130					135						140			
Ala	Leu	Val	Ser	Thr	Gly										
145					150										

<210> 4545

<211> 3568

<212> DNA

<213> Homo sapiens

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120
gacagaaatg cagaggagaa aaagcgttta tctcttcagc gagaaaagat tatcgcaagg
180
gtgagtattg ataacaggac cggggcatta gttcaggcat taagaagaac aactgaccca
240
aagctctgca ttactagggg tgaagaactg actttttcatc ttctagaatt tcctgaagga
300
aaaggagtgg ctgtcaagga aagaattatt ccatatttat tacgactgag acaaattaag
360
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420
gtgaaaggga gaggaatccg aattctctca attgatgggtg gaggaacaag gggcgtgggt
480
gctctccaga ccctacgaaa attagttgaa cttactcaga agccagttca tcagctcttt
540
gattacatth gtggtgtaag cacagggtgcc atattagctt tcatgttggg gttgtttcat
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660
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720
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780
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840
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900
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3180

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 3420
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 3480
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 3568

<210> 4546

<211> 380

<212> PRT

<213> Homo sapiens

<400> 4546

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Thr	Leu	Gln	Ala	Ala	Val	Arg	Glu	Ile	Leu	Ala	Leu	Ile	Gly	Tyr	Val	20	25	30	
Asp	Pro	Val	Lys	Gly	Arg	Gly	Ile	Arg	Ile	Leu	Ser	Ile	Asp	Gly	Gly	35	40	45	
Gly	Thr	Arg	Gly	Val	Val	Ala	Leu	Gln	Thr	Leu	Arg	Lys	Leu	Val	Glu	50	55	60	
Leu	Thr	Gln	Lys	Pro	Val	His	Gln	Leu	Phe	Asp	Tyr	Ile	Cys	Gly	Val	65	70	75	80
Ser	Thr	Gly	Ala	Ile	Leu	Ala	Phe	Met	Leu	Gly	Leu	Phe	His	Met	Pro	85	90	95	
Leu	Asp	Glu	Cys	Glu	Glu	Leu	Tyr	Arg	Lys	Leu	Gly	Ser	Asp	Val	Phe	100	105	110	
Ser	Gln	Asn	Val	Ile	Val	Gly	Thr	Val	Lys	Met	Ser	Trp	Ser	His	Ala	115	120	125	
Phe	Tyr	Asp	Ser	Gln	Thr	Trp	Glu	Asn	Ile	Leu	Lys	Asp	Arg	Met	Gly	130	135	140	
Ser	Ala	Leu	Met	Ile	Glu	Thr	Ala	Arg	Asn	Pro	Thr	Cys	Pro	Lys	Val	145	150	155	160
Ala	Ala	Val	Ser	Thr	Ile	Val	Asn	Arg	Gly	Ile	Thr	Pro	Lys	Ala	Phe	165	170	175	
Val	Phe	Arg	Asn	Tyr	Gly	His	Phe	Pro	Gly	Ile	Asn	Ser	His	Tyr	Leu	180	185	190	
Gly	Gly	Cys	Gln	Tyr	Lys	Met	Trp	Gln	Ala	Ile	Arg	Ala	Ser	Ser	Ala	195	200	205	
Ala	Pro	Gly	Tyr	Phe	Ala	Glu	Tyr	Ala	Leu	Gly	Asn	Asp	Leu	His	Gln	210	215	220	
Asp	Gly	Gly	Leu	Leu	Leu	Asn	Asn	Pro	Ser	Ala	Leu	Ala	Met	His	Glu	225	230	235	240
Cys	Lys	Cys	Leu	Trp	Pro	Asp	Val	Pro	Leu	Glu	Cys	Ile	Val	Ser	Leu	245	250	255	
Gly	Thr	Gly	Arg	Tyr	Glu	Ser	Asp	Val	Arg	Asn	Thr	Val	Thr	Tyr	Thr				

			260					265					270		
Ser	Leu	Lys	Thr	Lys	Leu	Ser	Asn	Val	Ile	Asn	Ser	Ala	Thr	Asp	Thr
		275					280					285			
Glu	Glu	Val	His	Ile	Met	Leu	Asp	Gly	Leu	Leu	Pro	Pro	Asp	Thr	Tyr
	290					295					300				
Phe	Arg	Phe	Asn	Pro	Val	Met	Cys	Glu	Asn	Ile	Pro	Leu	Asp	Glu	Ser
305					310					315					320
Arg	Asn	Glu	Lys	Leu	Asp	Gln	Leu	Gln	Leu	Glu	Gly	Leu	Lys	Tyr	Ile
				325					330					335	
Glu	Arg	Asn	Glu	Gln	Lys	Met	Lys	Lys	Val	Ala	Lys	Ile	Leu	Ser	Gln
			340					345					350		
Glu	Lys	Thr	Thr	Leu	Gln	Lys	Ile	Asn	Asp	Trp	Ile	Lys	Leu	Lys	Thr
		355					360					365			
Asp	Met	Tyr	Glu	Gly	Leu	Pro	Phe	Phe	Ser	Lys	Leu				
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<211> 2211
<212> DNA
<213> Homo sapiens
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240
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420
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<211> 515

<212> PRT

<213> Homo sapiens

<400> 4548

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<211> 2927

<212> DNA

<213> Homo sapiens

<400> 4549

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<211> 908

<212> PRT

<213> Homo sapiens

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<212> DNA

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 <212> PRT
 <213> Homo sapiens

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 Thr Val Asp Cys Asn Asp Leu Gly Leu Leu Thr Phe Pro Ala Arg Leu
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 Pro Ala Asn Thr Gln Ile Leu Leu Leu Gln Thr Asn Asn Ile Ala Lys
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 Pro Gln Leu Leu Ser Val Tyr Leu Glu Glu Asn Lys Leu Thr Glu Leu
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 Pro Glu Lys Cys Leu Ser Glu Leu Ser Asn Leu Gln Glu Leu Tyr Ile
 130 135 140
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 His Asn Leu Leu Arg Leu His Leu Asn Ser Asn Arg Leu Gln Met Ile
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 245 250 255
 Val Asn Leu Lys Phe Leu Asp Leu Asn Lys Asn Pro Ile Asn Arg Ile
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 Arg Arg Gly Asp Phe Ser Asn Met Leu His Leu Lys Glu Leu Gly Ile
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 Asn Asn Met Pro Glu Leu Ile Ser Ile Asp Ser Leu Ala Val Asp Asn
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 Leu Pro Asp Leu Arg Lys Ile Glu Ala Thr Asn Asn Pro Arg Leu Ser
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Phe Met Glu Pro Asp Ser Leu Phe Cys Val Asp Pro Pro Glu Phe Gln
385              390              395              400
Gly Gln Asn Val Arg Gln Val His Phe Arg Asp Met Met Glu Ile Cys
      405              410              415
Leu Pro Leu Ile Ala Pro Glu Ser Phe Pro Ser Asn Leu Asn Val Glu
      420              425              430
Ala Gly Ser Tyr Val Ser Phe His Cys Arg Ala Thr Ala Glu Pro Gln
      435              440              445
Pro Glu Ile Tyr Trp Ile Thr Pro Ser Gly Gln Lys Leu Leu Pro Asn
      450              455              460
Thr Leu Thr Asp Lys Phe Tyr Val His Ser Glu Gly Thr Leu Asp Ile
465              470              475              480
Asn Gly Val Thr Pro Lys Glu Gly Gly Leu Tyr Thr Cys Ile Ala Thr
      485              490              495
Asn Leu Val Gly Ala Asp Leu Lys Ser Val Met Ile Lys Val Asp Gly
      500              505              510
Ser Phe Pro Gln Asp Asn Asn Gly Ser Leu Asn Ile Lys Ile Arg Asp
      515              520              525
Ile Gln Ala Asn Ser Val Leu Val Ser Trp Lys Ala Ser Ser Lys Ile
      530              535              540
Leu Lys Ser Ser Val Lys Trp Thr Ala Phe Val Lys Thr Glu Asn Ser
545              550              555              560
His Ala Ala Gln Ser Ala Arg Ile Pro Ser Asp Val Lys Val Tyr Asn
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Pro Thr Ile Tyr Gln Lys Asn Arg Lys Lys Cys Val Asn Val Thr Thr
      595              600              605
Lys Gly Leu His Pro Asp Gln Lys Glu Tyr Glu Lys Asn Asn Thr Thr
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Thr Leu Met Ala Cys Leu Gly Gly Leu Leu Gly Ile Ile Gly Val Ile
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Cys Leu Ile Ser Cys Leu Ser Pro Glu Met Asn Cys Asp Gly Gly His
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Ser Tyr Val Arg Asn Tyr Leu Gln Lys Pro Thr Phe Ala Leu Gly Glu
      660              665              670
Leu Tyr Pro Pro Leu Ile Asn Leu Trp Glu Ala Gly Lys Glu Lys Ser
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Ser
705

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<210> 4555

<211> 1128

<212> DNA

<213> Homo sapiens

<400> 4555

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<211> 67

<212> PRT

<213> Homo sapiens

<400> 4556

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			20					25					30		
Gly	Leu	Lys	Leu	Ala	Leu	Cys	Gly	Thr	Val	Leu	Asp	His	Leu	Val	Gly
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Glu	Glu	Thr	Met	Ala	Asp	Tyr	Leu	Leu	Tyr	Thr	Leu	Asn	Lys	His	Gln
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<211> 446

<212> DNA

<213> Homo sapiens

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<210> 4558

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4558

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			20					25					30		
Lys	Ala	Val	Arg	Cys	Ala	Gln	Asp	His	Leu	Gly	His	Ser	His	Pro	Pro
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Glu	Thr	Ser	Arg	Ala	Phe	Leu	Pro	Pro	Pro	Ser	Asp	Val	Arg	Val	Arg
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Ser	Cys	Leu	Tyr	His	Trp	Ser	Ala	Thr	Ala	His	Leu	Pro	Pro	Leu	Ser
65					70				75					80	
Lys	Lys	Pro	Pro	Cys	Thr	Ile	Ser	His	Leu	Arg	Pro	Leu	Leu	Gly	Leu
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Pro	Pro	Pro	Ser	Asp	Leu	His	Ile	Pro	Ser	Ala	Ala	Thr	Leu	Gly	Pro
			100					105					110		
Cys	Met	His	Trp	Pro	Pro	Pro	Ser	Asp	Ala	Pro	Cys	Thr	Ile	Ser	Leu
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<210> 4559

<211> 919

<212> DNA

<213> Homo sapiens

<400> 4559

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<210> 4560

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4560

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Pro Cys Asp Pro Asp Arg Asp Gln Arg Tyr Leu Thr Thr Tyr Asn Gln
35           40           45
Gly Tyr Phe Glu Asn Ile Pro Lys Gly Leu Asp Gln Glu Gly Trp Thr
50           55           60
Arg Gly Gly Ile Gln Pro Gln Met Pro Gly Gly Tyr Ala Leu Ser Gln
65           70           75           80
Pro Val Ser Cys Met Glu Ala Thr Pro Asn Pro Met Glu Ser Leu Arg

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<211> 4172
<212> DNA
<213> Homo sapiens
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<211> 1182

<212> PRT

<213> Homo sapiens

<400> 4562

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Lys Lys Tyr Phe Ala Lys Ser Gln Ser Lys Ile Thr Arg Leu Ile Thr				
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<213> Homo sapiens

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			20					25					30		
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Leu	Arg	Val	Gln	Leu	Asp	Thr	Ile	Gln	Gly	Glu	Leu	Asn	Ala	Pro	Thr
			260					265					270		
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Asp	Leu	Leu	Arg	Glu	Ile	Lys	Gln	His	Leu	Lys	Gln	Gln	Gln	Glu	Gly
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 <212> PRT
 <213> Homo sapiens

<400> 4568
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 Val Gln Gln Arg Glu Leu Ala Val Thr Ser Pro Lys Asp Gly Ser Ile
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 Ser Ile Leu Gly Ser Asp Asp Ala Thr Thr Cys His Ile Val Val Leu
 65 70 75 80
 Arg His Thr Gly Asn Gly Ala Thr Cys Leu Thr His Cys Asp Gly Thr
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 <211> 1797
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<211> 141

<212> PRT

<213> Homo sapiens

<400> 4570

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      20           25           30
Gln Thr Trp His Ile Arg Phe Gly Asp Asn Gly Leu Gly Thr Leu Met
      35           40           45
Leu Leu Gly Pro Gly Glu Thr Val Leu Arg Gln Lys Leu Gly Val Gln
      50           55           60
Gly Gly Pro Arg Val Arg His Cys Gly Glu Gly Asn Ala Gly Glu Ser
65           70           75           80
Gly Pro Thr Leu Gln Leu Gly Thr Arg Gly Arg Lys Gln Arg Gly Gln
      85           90           95
Ala Ser Val Pro Leu Pro Gln Glu Gln Thr Ser Gly Pro Gln Glu Gly
      100          105          110
Leu Gln Ala Ala Arg Ser Leu Pro Ser Ala Gly Gly Ser Arg Gly Arg
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Lys Gly Trp Arg Ala Ala Gly Arg Gln Pro Ser Thr Arg
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<210> 4571

<211> 1084

<212> DNA

<213> Homo sapiens

<400> 4571

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720

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 <213> Homo sapiens

<400> 4572
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 20 25 30
 Ser Ser Arg Lys Ser Lys Ala Glu Leu Gln Ser Glu Glu Arg Lys Arg
 35 40 45
 Ile Asp Glu Leu Ile Glu Ser Gly Lys Glu Glu Gly Met Lys Ile Asp
 50 55 60
 Leu Ile Asp Gly Lys Gly Arg Gly Val Ile Ala Thr Lys Gln Phe Ser
 65 70 75 80
 Arg Gly Asp Phe Val Val Glu Tyr His Gly Asp Leu Ile Glu Ile Thr
 85 90 95
 Asp Ala Lys Lys Arg Glu Ala Leu Tyr Ala Gln Asp Pro Ser Thr Gly
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 Cys Tyr Met Tyr Tyr Phe Gln Tyr Leu Ser Lys Thr Tyr Trp
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<210> 4573
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 <213> Homo sapiens

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<211> 103
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<400> 4574
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35 40 45
Ala Gly Ala Val Gly Thr Pro Gly Lys Arg Gly Pro Ser Gly Pro Gln
50 55 60
Gly Leu Leu Gly Pro Pro Gly Pro Pro Ala Pro Val Gly Pro Pro His
65 70 75 80
Ala Arg Ile Ser Gln His Gly Asp Pro Leu Leu Ser Asn Thr Phe Thr
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Glu Thr Asn Pro Phe Thr Arg
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<210> 4575
<211> 1068
<212> DNA
<213> Homo sapiens

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<210> 4576

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4576

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			20					25					30		
Pro	Ala	Arg	His	Val	Ala	Thr	Ala	Gln	Gly	Glu	Val	Leu	Pro	Pro	Gly
			35				40					45			
Gly	Leu	Gly	Gly	Ala	Ala	Gln	Arg	Ala	Arg	Gly	Gln	Ser	His	Gly	Gly
	50					55					60				
Thr	Val	Pro	Gly	Asn	Ala	Pro	Ala	Ala	Asp	Leu	Leu	Ala	Leu	Ser	Pro
65					70					75				80	
Arg	Leu	Glu	Arg	Ser	Gly	Thr	Ile	Ser	Thr	His	Cys	Lys	Leu	Arg	Leu
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Pro	Gly	Ser	Arg	His	Ser	Pro	Ala	Ser	Ala	Ser					
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<211> 3525

<212> DNA

<213> Homo sapiens

<400> 4577

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<211> 1007

<212> PRT

<213> Homo sapiens

<400> 4578

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      35           40           45
Ser Val Gln Cys Thr Pro Pro Ser Ser Ser Ser Gly Ser Gln Gly Ser
      50           55           60
Gly Gln Lys Pro Trp Pro Trp His Leu Leu Leu Pro Ile Gly Asn Glu
65           70           75           80
Gly Leu Ile His Glu Leu His Phe Met Asp Glu Leu Val Lys Val Glu
      85           90           95
Ala His Asp Ala Glu Val Leu Cys Leu Glu Tyr Ser Lys Pro Glu Thr
      100          105          110
Gly Leu Thr Leu Leu Ala Ser Ala Ser Arg Asp Arg Leu Ile His Val
      115          120          125
Leu Asn Val Glu Lys Asn Tyr Asn Leu Glu Gln Thr Leu Asp Asp His
      130          135          140
Ser Ser Ser Ile Thr Ala Ile Lys Phe Ala Gly Asn Arg Asp Ile Gln
145          150          155          160
Met Ile Ser Cys Gly Ala Asp Lys Ser Ile Tyr Phe Arg Ser Ala Gln
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Gln Gly Ser Asp Gly Leu His Phe Val Arg Thr His His Val Ala Glu
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Lys Thr Thr Leu Tyr Asp Met Asp Ile Asp Ile Thr Gln Lys Tyr Val
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Ala Val Ala Cys Gln Asp Arg Asn Val Arg Val Tyr Asn Thr Val Asn
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Gly Lys Gln Lys Lys Cys Tyr Lys Gly Ser Gln Gly Asp Glu Gly Ser
225          230          235          240
Leu Leu Lys Val His Val Asp Pro Ser Gly Thr Phe Leu Ala Thr Ser
      245          250          255
Cys Ser Asp Lys Ser Ile Ser Val Ile Asp Phe Tyr Ser Gly Glu Cys
      260          265          270
Ile Ala Lys Met Phe Gly His Ser Gly Gly Cys Ala Ser Leu Leu Gly
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      290          295          300
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Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu Leu
      340          345          350
Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys Arg
      355          360          365
Ser Gly His Pro Arg Ser Trp Gln Pro Leu Pro Val His Gln Arg Asp
      370          375          380
Glu Ser Leu Pro Gly Pro His Gly Val Met Leu Gly Thr Gln Ser Ser
385          390          395          400
Leu Pro Ala Asn Gln Arg Gln Ala Ala Thr Val Gly Lys Ala Ala Gly

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			435					440				445												
Thr	Ile	Leu	Asp	Ala	Gln	Asp	Leu	Asp	Cys	Tyr	Phe	Thr	Pro	Met	Lys									
			450					455				460												
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465					470					475					480									
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Leu	Ile	Leu	Tyr	Ser	Leu	Glu	Ala	Glu	Val	Thr	Val	Thr	Gly	Thr	Asp									
			500					505				510												
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			610					615				620												
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625					630					635					640									
Pro	Glu	Val	Lys	Leu	Met	Asp	Arg	Gly	Gly	Ser	Gln	Pro	Arg	Ala	Gly									
			645					650				655												
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			660					665				670												
Val	Thr	Ala	Pro	Cys	Leu	Thr	Ser	Leu	Ala	Ser	Cys	Val	Pro	Ala	Ser									
			675					680				685												
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			690					695				700												
Thr	Pro	Gly	Leu	Ala	Gln	Gly	Val	His	Ala	Pro	Ser	Thr	Cys	Ser	Tyr									
705					710					715					720									
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			725					730				735												
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			770					775				780												
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Arg	Leu	Thr	Leu	Ser	Ser	Ala	Cys	Asp	Gly	Leu	Leu	Gln	Pro	Pro	Val									
			805					810				815												
Asp	Thr	Gln	Pro	Gly	Val	Thr</																		

835	840	845
Pro Ser Leu Pro Ala Pro Glu Ser Pro Gly Leu Pro Ala His Pro Ser		
850	855	860
Asn Pro Gln Leu Pro Glu Ala Arg Pro Gly Ile Pro Gly Gly Thr Ala		
865	870	875
Ser Leu Leu Glu Pro Thr Ser Gly Trp Gly Thr Ser Cys Thr Gly Cys		880
	885	890
Arg Pro Pro Ser Lys Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro		895
	900	905
Val Ala Arg Trp Thr Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser		910
	915	920
Pro Pro Ser Cys Gly Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp		925
	930	935
Gly Leu Val Trp Pro Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg		940
945	950	955
Pro His Arg Arg Cys Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys		960
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Trp Asn Thr Thr Arg Ser Cys Trp Cys Arg Pro Cys Gly Gly Arg His		975
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<210> 4579

<211> 321

<212> DNA

<213> Homo sapiens

<400> 4579

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<212> PRT

<213> Homo sapiens

<400> 4580

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Ile Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu		30
	35	40
Leu Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys		45

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Arg Ser Gly Pro Pro Arg Gln Asp Thr Tyr Val Ser Thr Pro Ser Glu				
65		70		75
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<210> 4581
 <211> 1396
 <212> DNA
 <213> Homo sapiens

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 360
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<210> 4582

<211> 354

<212> PRT

<213> Homo sapiens

<400> 4582

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Glu	Leu	Met	Lys	Ala	Phe	Glu	Thr	Pro	Glu	Glu	Lys	Arg	Ala	Arg	Arg
		35					40					45			
Leu	Ala	Lys	Lys	Glu	Ala	Lys	Glu	Arg	Lys	Lys	Arg	Glu	Lys	Met	Gly
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Trp	Gly	Glu	Glu	Tyr	Met	Gly	Tyr	Thr	Asn	Thr	Asp	Asn	Pro	Phe	Gly
65				70					75					80	
Asp	Asn	Asn	Leu	Leu	Gly	Thr	Phe	Ile	Trp	Asn	Lys	Ala	Leu	Glu	Lys
			85					90						95	
Lys	Gly	Ile	Ser	His	Leu	Glu	Glu	Lys	Glu	Leu	Lys	Glu	Arg	Asn	Lys
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Arg	Ile	Gln	Glu	Asp	Asn	Arg	Leu	Glu	Leu	Gln	Lys	Val	Lys	Gln	Leu
	115						120						125		
Arg	Leu	Glu	Arg	Glu	Arg	Glu	Lys	Ala	Met	Arg	Glu	Gln	Glu	Leu	Glu
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Met	Leu	Gln	Arg	Val	Lys	Gly	Thr	Glu	His	Phe	Lys	Thr	Trp	Glu	Glu
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Gln	Glu	Asp	Asn	Phe	His	Leu	Gln	Gln	Ala	Lys	Leu	Arg	Ser	Lys	Ile
			165						170					175	
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Ile	Ser	Ala	Glu	Asp	Asp	Asp	Leu	Ala	Gly	Glu	Met	His	Glu	Pro	Tyr
		195					200					205			
Thr	Phe	Leu	Asn	Gly	Leu	Thr	Val	Ala	Asp	Met	Glu	Asp	Leu	Leu	Glu
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			245						250					255	
Lys	Leu	Glu	Ala	Ser	Gly	Lys	Gly	Pro	Gly	Glu	Arg	Arg	Glu	Gly	Val
		260						265					270		
Asn	Ala	Ser	Val	Ser	Ser	Asp	Val	Gln	Ser	Val	Phe	Lys	Gly	Lys	Thr
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Tyr	Asn	Gln	Leu	Gln	Val	Ile	Phe	Gln	Gly	Ile	Glu	Gly	Lys	Ile	Arg
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Gln	Leu	Arg	Ala	His	Met	Ala	Arg	Ala	Arg	Leu	Arg	Glu	Arg	His	Gln
				325						330				335	
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<210> 4583
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 <212> DNA
 <213> Homo sapiens

<400> 4583
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<210> 4584

<211> 923

<212> PRT

<213> Homo sapiens

<400> 4584

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			20					25					30		
Trp	Leu	Gly	Glu	Leu	Gln	Arg	Ser	Val	His	Ala	Trp	Glu	Ile	Ser	Asp
		35					40					45			
Gln	Leu	Leu	Gln	Ile	Arg	Gln	Asp	Val	Glu	Ser	Cys	Tyr	Phe	Ala	Ala
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Gln	Thr	Met	Lys	Met	Lys	Ile	Gln	Thr	Ser	Phe	Tyr	Glu	Leu	Pro	Thr
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			100					105						110	
Ala	Asp	Leu	Ala	Leu	Gln	Met	Pro	Ser	Trp	Lys	Gly	Cys	Val	Gln	Thr
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Glu	Ile	Leu	Thr	Val	Leu	Pro	Glu	Glu	Val	His	Ser	Arg	Ser	Leu	Arg
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			165					170						175	
Ser	Ser	Thr	Val	Val	Ser	Leu	Leu	Met	Thr	Cys	Val	Glu	Lys	Ala	Gly
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Thr	Asp	Glu	Lys	Met	Leu	Met	Lys	Val	Phe	Arg	Cys	Leu	Gly	Ser	Trp
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Phe	Asn	Leu	Gly	Val	Leu	Asp	Ser	Asn	Phe	Met	Ala	Asn	Asn	Lys	Leu
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				260				265					270				
Val	Leu	Thr	Leu	Glu	Thr	Ala	Tyr	His	Met	Ala	Val	Ala	Arg	Glu	Asp		
		275					280					285					
Leu	Asp	Lys	Val	Leu	Asn	Tyr	Cys	Arg	Ile	Phe	Thr	Glu	Leu	Cys	Glu		
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Thr	Phe	Leu	Glu	Lys	Ile	Val	Cys	Thr	Pro	Gly	Gln	Gly	Leu	Gly	Asp		
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Leu	Arg	Thr	Leu	Glu	Leu	Leu	Leu	Ile	Cys	Ala	Gly	His	Pro	Gln	Tyr		
				325				330						335			
Glu	Val	Val	Glu	Ile	Ser	Phe	Asn	Phe	Trp	Tyr	Arg	Leu	Gly	Glu	His		
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Ile	Gln	Arg	Leu	Leu	His	Ala	Leu	Ala	Arg	His	Cys	Gln	Leu	Glu	Pro		
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			405					410						415			
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Pro	Trp	Glu	Val	Thr	Glu	Ala	Val	Leu	Phe	Ile	Met	Ala	Ala	Ile	Ala		
	435						440					445					
Lys	Ser	Val	Asp	Pro	Glu	Asn	Asn	Pro	Thr	Leu	Val	Glu	Val	Leu	Glu		
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Ser	Ile	Glu	Leu	Val	Gly	Glu	Met	Ser	Glu	Val	Val	Asp	Arg	Asn	Pro		
			485					490						495			
Gln	Phe	Leu	Asp	Pro	Val	Leu	Gly	Tyr	Leu	Met	Lys	Gly	Leu	Cys	Glu		
		500						505					510				
Lys	Pro	Leu	Ala	Ser	Ala	Ala	Ala	Lys	Ala	Ile	His	Asn	Ile	Cys	Ser		
	515						520					525					
Val	Cys	Arg	Asp	His	Met	Ala	Gln	His	Phe	Asn	Gly	Leu	Leu	Glu	Ile		
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Ala	Arg	Ser	Leu	Asp	Ser	Phe	Leu	Leu	Ser	Pro	Glu	Ala	Ala	Val	Gly		
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Val	Gly	Lys	Gly	Ser	Ala	Ala	Leu	Leu	Gln	Pro	Leu	Val	Thr	Gln	Met	
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Val	Asn	Val	Tyr	His	Val	His	Gln	His	Ser	Cys	Phe	Leu	Tyr	Leu	Gly	
	690					695				700						
Ser	Ile	Leu	Val	Asp	Glu	Tyr	Gly	Met	Glu	Glu	Gly	Cys	Arg	Gln	Gly	
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				725					730					735		
Glu	Gln	Gln	Asn	Gly	Leu	Gln	Asn	His	Pro	Asp	Thr	Val	Asp	Asp	Leu	
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Thr	Leu	Asp	His	Arg	Asp	Ala	Asn	Cys	Ser	Val	Met	Arg	Phe	Leu	Arg	
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Asp	Leu	Ile	His	Thr	Gly	Val	Ala	Asn	Asp	His	Glu	Glu	Asp	Phe	Glu	
				805					810					815		
Leu	Arg	Lys	Glu	Leu	Ile	Gly	Gln	Val	Met	Asn	Gln	Leu	Gly	Gln	Gln	
			820					825					830			
Leu	Val	Ser	Gln	Leu	Leu	His	Thr	Cys	Cys	Phe	Cys	Leu	Pro	Pro	Tyr	
		835					840					845				
Thr	Leu	Pro	Asp	Val	Ala	Glu	Val	Leu	Trp	Glu	Ile	Met	Gln	Val	Asp	
	850					855					860					
Arg	Pro	Thr	Phe	Cys	Arg	Trp	Leu	Glu	Asn	Ser	Leu	Lys	Gly	Leu	Pro	
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Lys	Glu	Thr	Thr	Val	Gly	Ala	Val	Thr	Val	Thr	His	Lys	Gln	Leu	Thr	
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Asp	Phe	His	Lys	Gln	Val	Thr	Ser	Ala	Glu	Glu	Cys	Lys	Gln	Val	Cys	
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<210> 4585
<211> 1952
<212> DNA
<213> Homo sapiens
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420
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<210> 4586

<211> 530

<212> PRT

<213> Homo sapiens

<400> 4586

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Lys Asp Val His Lys Gly Val Gly Gly Ile Ile Phe Ser Ser Ser Pro
          35           40           45
Ile Leu Asp Leu Ser Glu Ser Gly Leu Cys Arg Leu Glu Glu Val Phe
          50           55           60
Arg Ile Pro Ser Leu Gln Gln Leu His Leu Gln Arg Asn Ala Leu Cys
65           70           75           80
Val Ile Pro Gln Asp Phe Phe Gln Leu Leu Pro Asn Leu Thr Trp Leu
          85           90           95
Asp Leu Arg Tyr Asn Arg Ile Lys Ala Leu Pro Ser Gly Ile Gly Ala
          100          105          110
His Gln His Leu Lys Thr Leu Leu Leu Glu Arg Asn Pro Ile Lys Met
          115          120          125
Leu Pro Val Glu Leu Gly Ser Val Thr Thr Leu Lys Ala Leu Asn Leu
          130          135          140
Arg His Cys Pro Leu Glu Phe Pro Pro Gln Leu Val Val Gln Lys Gly
          145          150          155          160
Leu Val Ala Ile Gln Arg Phe Leu Arg Met Trp Ala Val Glu His Ser
          165          170          175
Leu Pro Arg Asn Pro Thr Ser Gln Glu Ala Pro Pro Val Arg Glu Met
          180          185          190
Thr Leu Arg Asp Leu Pro Ser Pro Gly Leu Glu Leu Ser Gly Asp His
          195          200          205
Ala Ser Asn Gln Gly Ala Val Asn Ala Gln Asp Pro Glu Gly Ala Val
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Met Lys Glu Lys Ala Ser Phe Leu Pro Pro Val Glu Lys Pro Asp Leu
          225          230          235          240
Ser Glu Leu Arg Lys Ser Ala Asp Ser Ser Glu Asn Trp Pro Ser Glu
          245          250          255
Glu Glu Ile Arg Arg Phe Trp Lys Leu Arg Gln Glu Ile Val Glu His
          260          265          270
Val Lys Ala Asp Val Leu Gly Asp Gln Leu Leu Thr Arg Glu Leu Pro
          275          280          285
Pro Asn Leu Lys Ala Ala Leu Asn Ile Glu Lys Glu Leu Pro Lys Pro
          290          295          300
Arg His Val Phe Arg Arg Lys Thr Ala Ser Ser Arg Ser Ile Leu Pro
          305          310          315          320
Asp Leu Leu Ser Pro Tyr Gln Met Ala Ile Arg Ala Lys Arg Leu Glu
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          340          345          350
Met Glu Gln Gln Arg Arg Glu Lys Arg Ala Leu Gln Glu Trp Arg Glu
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Arg Ala Gln Arg Met Arg Lys Arg Lys Glu Glu Leu Ser Lys Leu Leu
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Leu Ile Asp Asn Arg Lys Val Pro Leu Asn Pro Pro Gly Lys Met Lys
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Pro Ser Lys Glu Lys Ser Pro Gln Ala Ser Lys Glu Met Ser Ala Leu
          420          425          430
Gln Glu Arg Asn Leu Glu Glu Lys Ile Lys Gln His Val Leu Gln Met
          435          440          445
Arg Glu Gln Arg Arg Phe His Gly Gln Ala Pro Leu Glu Glu Met Arg
          450          455          460
Lys Ala Ala Glu Asp Leu Glu Ile Ala Thr Glu Leu Gln Asp Glu Val
465          470          475          480
Leu Lys Leu Lys Leu Gly Leu Thr Leu Asn Lys Asp Arg Arg Arg Ala
          485          490          495
Ala Leu Thr Gly Asn Leu Ser Leu Gly Leu Pro Ala Ala Gln Pro Gln
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Asn Thr Phe Phe Asn Thr Lys Tyr Gly Glu Ser Gly Asn Val Arg Arg
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Tyr Gln
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<210> 4587

<211> 1723

<212> DNA

<213> Homo sapiens

<400> 4587

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840

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<210> 4588

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4588

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			20					25					30		
Pro	Ser	Lys	Lys	Gly	Glu	Thr	Pro	Thr	Val	Asp	Gly	Thr	Trp	Lys	Thr
			35					40					45		
Pro	Ser	Phe	Pro	Lys	Lys	Lys	Thr	Ala	Ala	Ser	Ser	Asn	Gly	Ser	Gly
			50					55					60		
Gln	Pro	Leu	Asp	Lys	Lys	Ala	Ala	Val	Ser	Trp	Leu	Thr	Pro	Ala	Pro
65						70				75				80	
Ser	Lys	Lys	Ala	Asp	Ser	Val	Ala	Ala	Lys	Val	Asp	Leu	Leu	Gly	Glu
				85						90				95	
Phe	Gln	Ser	Ala	Leu	Pro	Lys	Ile	Asn	Ser	His	Pro	Thr	Arg	Ser	Gln
			100					105					110		
Lys	Lys	Ser	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Lys	Asn	His	Pro	Gln	Lys
			115					120					125		
Asn	Ala	Pro	Gln	Asn	Ser	Thr	Gln	Ala	His	Ser	Glu	Asn	Lys	Cys	Ser

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Gly Ala Ser Gln Lys Leu Pro Arg Lys Met Val Ala Ile Asp Cys Glu		
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Met Val Gly Thr Gly Pro Lys Gly His Val Ser Ser Leu Ala Arg Cys		160
	165	170
Ser Ile Val Asn Tyr Asn Gly Asp Val Leu Tyr Asp Glu Tyr Ile Leu		175
	180	185
Pro Pro Cys His Ile Val Asp Tyr Arg Thr Arg Trp Ser Gly Ile Arg		190
	195	200
Lys Gln His Met Val Asn Ala Thr Pro Phe Lys Ile Ala Arg Gly Gln		205
	210	215
Ile Leu Lys Ile Leu Thr Gly Lys Ile Val Val Gly His Ala Ile His		220
225	230	235
Asn Asp Phe Lys Ala Leu Gln Tyr Phe His Pro Lys Ser Leu Thr Arg		240
	245	250
Asp Thr Ser His Ile Pro Pro Leu Asn Arg Lys Ala Asp Cys Pro Glu		255
	260	265
Asn Ala Thr Met Ser Leu Lys His Leu Thr Lys Lys Leu Leu Asn Arg		270
	275	280
Asp Ile Gln Val Gly Lys Ser Gly His Ser Ser Val Glu Asp Ala Gln		285
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Ala Thr Met Glu Leu Tyr Lys Leu Val Glu Val Glu Trp Glu Glu His		300
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<210> 4589

<211> 585

<212> DNA

<213> Homo sapiens

<400> 4589

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<210> 4590

<211> 121
 <212> PRT
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 35 40 45
 His Thr Leu Ser Pro Leu Ser Phe Arg Cys Ser Gln Arg Glu Pro Gln
 50 55 60
 Gly Phe Arg Pro Gly Met Arg Cys Gly Gly Ser Ser Leu Gly Arg Thr
 65 70 75 80
 Cys Cys Ser Pro Thr Arg Arg Ala Cys Val Val Ser Arg Ala Val Thr
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<210> 4591
 <211> 496
 <212> DNA
 <213> Homo sapiens

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<210> 4592
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 4592
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Lys Ala Ser Ser Ile Tyr Ser Thr Ala Leu Cys Phe Gly Leu Lys Arg			
	35	40	45
Ala Pro Leu Trp Pro Ser Gly His Asp Arg Leu His Glu Thr Arg Lys			
	50	55	60
Leu Arg Cys Leu Ala Asp Arg Leu Val Ser Pro His Pro Ala Ser Ser			
65	70	75	80
Pro Gly Ser Arg Tyr Leu Pro Gln Asn Ser Leu His Lys Trp Pro Gln			
	85	90	95
Ala Cys Ala Gly Leu Trp Gly Phe Leu Pro Trp Ala Val Val Leu Gly			
	100	105	110
Met Cys Ser Pro Gln Ala Asp Gly Gln Leu Trp Glu Gly Trp Ser Cys			
	115	120	125
Arg Leu Gly Ile His Thr Pro Ala His Val Ala Ser Pro Ser Ala Val			
	130	135	140
Trp Ser Gln Gly Trp Ala Gly Lys			
145	150		

<210> 4593

<211> 4783

<212> DNA

<213> Homo sapiens

<400> 4593

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<210> 4594

<211> 1145

<212> PRT

<213> Homo sapiens

<400> 4594

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Phe	Ser	Ser	Phe	Ala	Ser	Gln	Ala	Ser	Gly	Ser	Ser	Ser	Ser	Ala	Thr
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Thr	Val	Thr	Ser	Lys	Val	Ala	Pro	Ser	Trp	Pro	Glu	Ser	His	Ser	Ser
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Ala	Asp	Ser	Ala	Ser	Leu	Ala	Lys	Lys	Lys	Pro	Leu	Phe	Ile	Thr	Thr
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Asp	Ser	Ser	Lys	Leu	Val	Ser	Gly	Val	Leu	Gly	Ser	Ala	Leu	Thr	Ser
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Gly	Gly	Pro	Ser	Leu	Ser	Ala	Met	Gly	Asn	Gly	Arg	Ser	Ser	Ser	Pro
			100					105					110		
Thr	Ser	Ser	Leu	Thr	Gln	Pro	Ile	Glu	Met	Pro	Thr	Leu	Ser	Ser	Ser
			115				120					125			
Pro	Thr	Glu	Glu	Arg	Pro	Thr	Val	Gly	Pro	Gly	Gln	Gln	Asp	Asn	Pro
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Leu	Leu	Lys	Thr	Phe	Ser	Asn	Val	Phe	Gly	Arg	His	Ser	Gly	Gly	Phe
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Leu	Ser	Ser	Pro	Ala	Asp	Phe	Ser	Gln	Glu	Asn	Lys	Ala	Pro	Phe	Glu
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Ala	Val	Lys	Arg	Phe	Ser	Leu	Asp	Glu	Arg	Ser	Leu	Ala	Cys	Arg	Gln

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Asp	Ser	Asp	Ser	Ser	Thr	Asn	Ser	Asp	Leu	Ser	Asp	Leu	Ser	Asp	Ser					
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Glu	Glu	Gln	Leu	Gln	Ala	Lys	Thr	Gly	Leu	Lys	Gly	Ile	Pro	Glu	His					
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Leu	Met	Gly	Lys	Leu	Gly	Pro	Asn	Gly	Glu	Arg	Ser	Ala	Glu	Leu	Leu					
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Lys	Lys	Leu	Lys	Gln	Ser	Gly	Glu	Pro	Phe	Leu	Gln	Asp	Gly	Ser	Cys					
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Ile	Asn	Val	Ala	Pro	His	Leu	His	Lys	Cys	Arg	Glu	Cys	Arg	Leu	Glu					
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Arg	Tyr	Arg	Lys	Phe	Lys	Glu	Gln	Glu	Gln	Asp	Asp	Ser	Thr	Val	Ala					
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Cys	Arg	Phe	Phe	His	Phe	Arg	Arg	Leu	Ile	Phe	Thr	Arg	Lys	Gly	Val					
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Leu	Arg	Val	Glu	Gly	Phe	Leu	Ser	Pro	Gln	Gln	Ser	Asp	Pro	Asp	Ala					
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Met	Asn	Leu	Trp	Ile	Pro	Ser	Ser	Ser	Leu	Ala	Glu	Gly	Ile	Asp	Leu					
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Glu	Thr	Ser	Lys	Tyr	Ile	Leu	Ala	Asn	Val	Gly	Asp	Gln	Phe	Cys	Gln					
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Leu	Val	Met	Ser	Glu	Lys	Glu	Ala	Met	Met	Met	Val	Glu	Pro	His	Gln					
385					390					395					400					
Lys	Val	Ala	Trp	Lys	Arg	Ala	Val	Arg	Gly	Val	Arg	Glu	Met	Cys	Asp					
				405					410					415						
Val	Cys	Glu	Thr	Thr	Leu	Phe	Asn	Ile	His	Trp	Val	Cys	Arg	Lys	Cys					
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Gly	Phe	Gly	Val	Cys	Leu	Asp	Cys	Tyr	Arg	Leu	Arg	Lys	Ser	Arg	Pro					
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Arg	Ser	Glu	Thr	Glu	Glu	Met	Gly	Asp	Glu	Glu	Val	Phe	Ser	Trp	Leu					
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465					470					475					480					
Gln	Ile	Ile	Pro	Gly	Thr	Ala	Leu	Tyr	Asn	Ile	Gly	Asp	Met	Val	His					
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Ala	Ala	Arg	Gly	Lys	Trp	Gly	Ile	Lys	Ala	Asn	Cys	Pro	Cys	Ile	Ser					
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		515					520					525								
Gln	Leu																			

610	615	620
Gly Ser Leu Arg Ser Val Leu Asn Lys Glu Ser His Ser Pro Phe Gly		
625	630	635
Leu Asp Ser Phe Asn Ser Thr Ala Lys Val Ser Pro Leu Thr Pro Lys		640
	645	650
Leu Phe Asn Ser Leu Leu Leu Gly Pro Thr Ala Ser Asn Asn Lys Thr		655
	660	665
Glu Gly Ser Ser Leu Arg Asp Leu Leu His Ser Gly Pro Gly Lys Leu		670
	675	680
Pro Gln Thr Pro Leu Asp Thr Gly Ile Pro Phe Pro Pro Val Phe Ser		685
	690	695
Thr Ser Ser Ala Gly Val Lys Ser Lys Ala Ser Leu Pro Asn Phe Leu		700
705	710	715
Asp His Ile Ile Ala Ser Val Val Glu Asn Lys Lys Thr Ser Asp Ala		720
	725	730
Ser Lys Arg Ala Cys Asn Leu Thr Asp Thr Gln Lys Glu Val Lys Glu		735
	740	745
Met Val Met Gly Leu Asn Val Leu Asp Pro His Thr Ser His Ser Trp		750
	755	760
Leu Cys Asp Gly Arg Leu Leu Cys Leu His Asp Pro Ser Asn Lys Asn		765
	770	775
Asn Trp Lys Ile Phe Arg Glu Cys Trp Lys Gln Gly Gln Pro Val Leu		780
785	790	795
Val Ser Gly Val His Lys Lys Leu Lys Ser Glu Leu Trp Lys Pro Glu		800
	805	810
Ala Phe Ser Gln Glu Phe Gly Asp Gln Asp Val Asp Leu Val Asn Cys		815
	820	825
Arg Asn Cys Ala Ile Ile Ser Asp Val Lys Val Arg Asp Phe Trp Asp		830
	835	840
Gly Phe Glu Ile Ile Cys Lys Arg Leu Arg Ser Glu Asp Gly Gln Pro		845
	850	855
Met Val Leu Lys Leu Lys Asp Trp Pro Pro Gly Glu Asp Phe Arg Asp		860
865	870	875
Met Met Pro Thr Arg Phe Glu Asp Leu Met Glu Asn Leu Pro Leu Pro		880
	885	890
Glu Tyr Thr Lys Arg Asp Gly Arg Leu Asn Leu Ala Ser Arg Leu Pro		895
	900	905
Ser Tyr Phe Val Arg Pro Asp Leu Gly Pro Lys Met Tyr Asn Ala Tyr		910
	915	920
Gly Leu Ile Thr Ala Glu Asp Arg Arg Val Gly Thr Thr Asn Leu His		925
	930	935
Leu Asp Val Ser Asp Ala Val Asn Val Met Val Tyr Val Gly Ile Pro		940
945	950	955
Ile Gly Glu Gly Ala His Asp Glu Glu Val Leu Lys Thr Ile Asp Glu		960
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Gly Asp Ala Asp Glu Val Thr Lys Gln Arg Ile His Asp Gly Lys Glu		975
	980	985
Lys Pro Gly Ala Leu Trp His Ile Tyr Ala Ala Lys Asp Ala Glu Lys		990
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Ile Arg Glu Leu Leu Arg Lys Val Gly Glu Glu Gln Gly Gln Glu Asn		1005
	1010	1015
Pro Pro Asp His Asp Pro Ile His Asp Gln Ser Trp Tyr Leu Asp Gln		1020
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Thr Leu Arg Lys Arg Leu Tyr Glu Glu Tyr Gly Val Gln Gly Trp Ala		1040

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Ile Val Gln Phe Leu Gly Asp Ala Val Phe Ile Pro Ala Gly Ala Pro			
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His Gln Val His Asn Leu Tyr Ser Cys Ile Lys Val Ala Glu Asp Phe			
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Val Ser Pro Glu His Val Lys His Cys Phe Arg Leu Thr Gln Glu Phe			
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Arg His Leu Ser Asn Thr His Thr Asn His Glu Asp Lys Leu Gln Val			
1105	1110	1115	1120
Lys Asn Ile Ile Tyr His Ala Val Lys Asp Ala Val Gly Thr Leu Lys			
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<211> 935

<212> DNA

<213> Homo sapiens

<400> 4595

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<210> 4596

<211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4596

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Phe Leu Gly Thr Ser Ile Ser Ser Ser Ser Ser Trp Ala Pro Leu Arg
      35           40           45
Gly Arg Glu Ala Ala Leu Pro Gly Pro Ala Gly Asp Xaa Ala Val Lys
      50           55           60
Gly Pro Ala Asp Pro Ala Ala Gln His Ser Arg Asp Gly Gln Gly Gly
65           70           75           80
Trp Pro Pro Ala Gln Gly Thr Ala Ser Thr Ala Gly Lys Ser Gly Ala
      85           90           95
Pro Gly Ala Trp Ser Val Gly Gly Ala Thr Gly Pro Arg Gly Ala Lys
      100          105          110
Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser Pro Gly Ser Pro Pro Arg
      115          120          125
Glu Ser Arg Cys Leu Ala Pro Gly Pro Ser Arg Leu Asp Pro Gly Pro
      130          135          140
Ala Xaa Ala Ala Ala Pro Gly Ala Leu Arg Pro Pro Ala Asp Pro Ser
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Gln Ala Arg Pro Arg Gly Ser Asn
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<210> 4597
 <211> 515
 <212> DNA
 <213> Homo sapiens

<400> 4597

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<210> 4598

<211> 135
 <212> PRT
 <213> Homo sapiens

<400> 4598
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 35 40 45
 Leu Leu Ser Ala Pro Phe Cys Leu Leu Pro Ala Leu Ser Gln Ala Val
 50 55 60
 Ser Pro Arg Asn Ser Leu Arg Asn Ile Leu Thr Leu Asn Ser Thr Ala
 65 70 75 80
 Glu Pro Ser Ser Trp Glu Ser Arg Glu Arg Pro Leu Gln Ser Arg Asn
 85 90 95
 Val Tyr Ser Ser Ala Ser Phe Ser Glu His Leu Asp Gly Gly Cys Ser
 100 105 110
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<210> 4599
 <211> 2314
 <212> DNA
 <213> Homo sapiens

<400> 4599
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<210> 4600
 <211> 228
 <212> PRT
 <213> Homo sapiens

<400> 4600
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 35 40 45
 Phe Arg Met Glu Ser Gly Ile Glu Pro Ser Val Asp Leu Glu Thr Leu
 50 55 60
 Asp Glu Arg Ile Lys Ile Arg Glu Met Ile Leu Lys Gly Gln Ile Gln
 65 70 75 80
 Glu Ala Ile Ala Leu Ile Asn Ser Leu His Pro Glu Leu Leu Asp Thr
 85 90 95
 Asn Arg Tyr Leu Tyr Phe His Leu Gln Gln Gln His Leu Ile Glu Leu
 100 105 110
 Ile Arg Gln Arg Glu Thr Glu Ala Ala Leu Glu Phe Ala Gln Thr Gln
 115 120 125
 Leu Ala Glu Gln Gly Glu Glu Ser Arg Glu Cys Leu Thr Glu Met Glu
 130 135 140
 Arg Thr Leu Ala Leu Leu Ala Phe Asp Ser Pro Glu Glu Ser Pro Phe
 145 150 155 160
 Gly Asp Leu Leu His Thr Met Gln Arg Gln Lys Val Trp Ser Glu Val
 165 170 175
 Asn Gln Ala Val Leu Asp Tyr Glu Asn Arg Glu Ser Thr Pro Lys Leu
 180 185 190
 Ala Lys Leu Leu Lys Leu Leu Leu Trp Ala Gln Asn Glu Leu Asp Gln
 195 200 205
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 210 215 220
 Glu Glu Pro Lys
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<210> 4601
 <211> 916
 <212> DNA
 <213> Homo sapiens

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<211> 305

<212> PRT

<213> Homo sapiens

<400> 4602

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Ile	Val	Ile	Met	Glu	Val	Gln	Gly	Leu	Lys	Ser	Val	Ala	Pro	Asn	Arg
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<210> 4603

<211> 2090

<212> DNA

<213> Homo sapiens

<400> 4603

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<210> 4604

<211> 666

<212> PRT

<213> Homo sapiens

<400> 4604

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 Glu Ser Glu Ser Pro Gln Glu Ala Gly Arg Gly His Pro Ser Phe Leu
 50 55 60
 Pro Gln Gln Lys Glu Ser Ser Glu Ala Ser Glu Leu Ile Leu Tyr Ser

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Leu	Glu	Ala	Glu	Val	Thr	Val	Thr	Gly	Thr	Asp	Ser	Gln	Tyr	Cys	Arg
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Lys	Glu	Val	Glu	Ala	Gly	Pro	Gly	Asp	Gln	Gln	Gly	Asp	Ser	Tyr	Leu
		100						105					110		
Arg	Val	Ser	Ser	Asp	Ser	Pro	Lys	Asp	Gln	Ser	Pro	Pro	Glu	Asp	Ser
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			420					425					430		
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Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro Val Ala Arg Trp Thr					
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Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser Pro Pro Ser Cys Gly					
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Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp Gly Leu Val Trp Pro					
	595		600		605
Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg Pro His Arg Arg Cys					
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Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys Trp Asn Thr Thr Arg					
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<210> 4605

<211> 2998

<212> DNA

<213> Homo sapiens

<400> 4605

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<210> 4606

<211> 584

<212> PRT

<213> Homo sapiens

<400> 4606

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			20					25					30		
Trp	Ser	Leu	Pro	Asp	Gly	Ser	Leu	Val	Asn	Ser	Phe	Met	Gln	Ser	Asp
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Phe	Ala	Glu	Asn	Gln	Val	Gly	Lys	Asp	Glu	Met	Arg	Val	Arg	Val	Lys
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Val	Val	Thr	Ala	Pro	Ala	Thr	Ile	Arg	Asn	Lys	Thr	Cys	Leu	Ala	Val
			100					105					110		
Gln	Val	Pro	Tyr	Gly	Asp	Val	Val	Thr	Val	Ala	Cys	Glu	Ala	Lys	Gly
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Glu	Pro	Met	Pro	Lys	Val	Thr	Trp	Leu	Ser	Pro	Thr	Asn	Lys	Val	Ile
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Val	Gln	Pro	Pro	Lys	Ile	Asn	Gly	Asn	Pro	Asn	Pro	Ile	Thr	Thr	Val
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      245              250              255
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      260              265              270
Val Cys Met Ala Arg Asn Glu Gly Gly Glu Ala Arg Leu Ile Leu Gln
      275              280              285
Leu Thr Val Leu Glu Pro Met Glu Lys Pro Ile Phe His Asp Pro Ile
      290              295              300
Ser Glu Lys Ile Thr Ala Met Ala Gly His Thr Ile Ser Leu Asn Cys
305              310              315              320
Ser Ala Ala Gly Thr Pro Thr Pro Ser Leu Val Trp Val Leu Pro Asn
      325              330              335
Gly Thr Asp Leu Gln Ser Gly Gln Gln Leu Gln Arg Phe Tyr His Lys
      340              345              350
Ala Asp Gly Met Leu His Ile Ser Gly Leu Ser Ser Val Asp Ala Gly
      355              360              365
Ala Tyr Arg Cys Val Ala Arg Asn Ala Ala Gly His Thr Glu Arg Leu
      370              375              380
Val Ser Leu Lys Val Gly Leu Lys Pro Glu Ala Asn Lys Gln Tyr His
385              390              395              400
Asn Leu Val Ser Ile Ile Asn Gly Glu Thr Leu Lys Leu Pro Cys Thr
      405              410              415
Pro Pro Gly Ala Gly Gln Gly Arg Phe Ser Trp Thr Leu Pro Asn Gly
      420              425              430
Met His Leu Glu Gly Pro Gln Thr Leu Gly Arg Val Ser Leu Leu Asp
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Asn Gly Thr Leu Thr Val Arg Glu Ala Ser Val Phe Asp Arg Gly Thr
      450              455              460
Tyr Val Cys Arg Met Glu Thr Glu Tyr Gly Pro Ser Val Thr Ser Ile
465              470              475              480
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      485              490              495
Pro Val Ile Tyr Thr Arg Pro Gly Asn Thr Val Lys Leu Asn Cys Met
      500              505              510
Ala Met Gly Ile Pro Lys Ala Asp Ile Thr Trp Glu Leu Pro Asp Lys
      515              520              525
Ser His Leu Lys Ala Gly Val Gln Ala Arg Leu Tyr Gly Asn Arg Phe
      530              535              540
Leu His Pro Gln Gly Ser Leu Thr Ile Gln His Ala Thr Gln Arg Asp
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<211> 456

<212> DNA

<213> Homo sapiens

<400> 4607

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<210> 4608

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4608

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			20					25					30		
Phe	Gln	Met	Thr	Gln	Glu	Val	Val	Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys
		35					40					45			
Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu	Glu	Val	Glu	Ile	Glu	Pro	Gly	Val
	50					55					60				
Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	Ile	Gly	Glu	Gly	Glu	Pro	His	Val
65					70					75				80	
Asp	Gly	Xaa	Pro	Gly	Asp	Leu	Arg	Phe	Arg	Ile	Lys	Val	Val	Lys	His
				85					90					95	
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<210> 4609

<211> 904

<212> DNA

<213> Homo sapiens

<400> 4609

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 180
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 660
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 780
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 904

<210> 4610

<211> 250

<212> PRT

<213> Homo sapiens

<400> 4610

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Pro	Gln	Pro	Pro	Gly	Ala	Ala	Arg	Trp	Ala	Glu	Val	Met	Ala	Arg	Phe
				20				25					30		
Ala	Ala	Arg	Leu	Gly	Ala	Gln	Gly	Arg	Arg	Val	Val	Leu	Val	Thr	Ser
				35				40					45		
Gly	Gly	Thr	Lys	Val	Pro	Leu	Glu	Ala	Arg	Pro	Val	Arg	Phe	Leu	Asp
				50				55				60			
Asn	Phe	Ser	Ser	Gly	Arg	Arg	Gly	Ala	Thr	Ser	Ala	Glu	Ala	Phe	Leu
65					70					75				80	
Ala	Ala	Gly	Tyr	Gly	Val	Leu	Phe	Leu	Tyr	Arg	Ala	Arg	Ser	Ala	Phe
					85					90				95	
Pro	Tyr	Ala	His	Arg	Phe	Pro	Pro	Gln	Thr	Trp	Leu	Ser	Ala	Leu	Arg
					100				105				110		
Pro	Ser	Gly	Pro	Ala	Leu	Ser	Gly	Leu	Leu	Ser	Leu	Glu	Ala	Glu	Glu
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						135						140			
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Tyr	Leu	His	Leu	Leu	Gln	Ala	Ala	Ala	Gln	Ala	Leu	Asn	Pro	Leu	Gly
					165				170					175	
Pro	Ser	Ala	Met	Phe	Tyr	Leu	Ala	Ala	Ala	Val	Ser	Asp	Phe	Tyr	Val
					180				185				190		
Pro	Val	Ser	Glu	Met	Pro	Glu	His	Lys	Ile	Gln	Ser	Ser	Gly	Gly	Pro

195	200	205
Leu Gln Gly Lys Val Gln Leu Glu Asp Ile Leu His His Leu Glu Lys		
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245	250	

<210> 4611

<211> 1946

<212> DNA

<213> Homo sapiens

<400> 4611

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1200

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<211> 532

<212> PRT

<213> Homo sapiens

<400> 4612

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Lys	Pro	Ala	Pro	Ser	Ser	Gln	Arg	Lys	Pro	Pro	Ala	Arg	Pro	Ser	Ala
		20						25					30		
Ala	Ala	Ala	Ala	Ile	Ala	Val	Ala	Ala	Ala	Glu	Glu	Glu	Arg	Arg	Leu
		35					40						45		
Arg	Gln	Arg	Asn	Arg	Leu	Arg	Leu	Glu	Glu	Asp	Lys	Pro	Ala	Val	Glu
		50				55					60				
Arg	Cys	Leu	Glu	Glu	Leu	Val	Phe	Gly	Asp	Val	Glu	Asn	Asp	Glu	Asp
65					70				75					80	
Ala	Leu	Leu	Arg	Arg	Leu	Arg	Gly	Pro	Arg	Val	Gln	Glu	His	Glu	Asp
			85					90						95	
Ser	Gly	Asp	Ser	Glu	Val	Glu	Asn	Glu	Ala	Lys	Gly	Asn	Phe	Pro	Pro
			100					105					110		
Gln	Lys	Lys	Pro	Val	Trp	Val	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Glu	Met
		115					120					125			
Val	Asp	Met	Met	Asn	Asn	Arg	Phe	Arg	Lys	Asp	Met	Met	Lys	Asn	Ala
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Ser	Glu	Ser	Lys	Leu	Ser	Lys	Asp	Asn	Leu	Lys	Lys	Arg	Leu	Lys	Glu
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					165					170					175				
Lys	Arg	Lys	Thr	Ser	Ser	Asp	Asp	Glu	Ser	Glu	Glu	Asp	Glu	Asp	Asp				
			180					185					190						
Leu	Leu	Gln	Arg	Thr	Gly	Asn	Phe	Ile	Ser	Thr	Ser	Thr	Ser	Leu	Pro				
		195					200						205						
Arg	Gly	Ile	Leu	Lys	Met	Lys	Asn	Cys	Gln	His	Ala	Asn	Ala	Glu	Arg				
	210					215						220							
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225					230					235					240				
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				245					250					255					
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			260					265					270						
Pro	Ile	Phe	Lys	Ala	Cys	Phe	Ser	Ala	Asn	Gly	Glu	Glu	Val	Leu	Ala				
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Thr	Ser	Thr	His	Ser	Ser	Val	Leu	Tyr	Val	Tyr	Asp	Met	Leu	Ala	Gly				
	290				295						300								
Lys	Leu	Ile	Pro	Val	His	Gln	Val	Arg	Gly	Leu	Lys	Glu	Lys	Ile	Val				
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Arg	Ser	Phe	Glu	Val	Ser	Pro	Asp	Gly	Ser	Phe	Leu	Leu	Ile	Asn	Gly				
				325					330					335					
Ile	Ala	Gly	Tyr	Leu	His	Leu	Leu	Ala	Met	Lys	Thr	Lys	Glu	Leu	Ile				
			340					345					350						
Gly	Ser	Met	Lys	Ile	Asn	Gly	Arg	Val	Ala	Ala	Ser	Thr	Phe	Ser	Ser				
		355					360					365							
Asp	Ser	Lys	Lys	Val	Tyr	Ala	Ser	Ser	Gly	Asp	Gly	Glu	Val	Tyr	Val				
	370					375					380								
Trp	Asp	Val	Asn	Ser	Arg	Lys	Cys	Leu	Asn	Arg	Phe	Val	Asp	Glu	Gly				
385					390					395				400					
Ser	Leu	Tyr	Gly	Leu	Ser	Ile	Ala	Thr	Ser	Arg	Asn	Gly	Gln	Tyr	Val				
				405					410					415					
Ala	Cys	Gly	Ser	Asn	Cys	Gly	Val	Val	Asn	Ile	Tyr	Asn	Gln	Asp	Ser				
			420					425					430						
Cys	Leu	Gln	Glu	Thr	Asn	Pro	Lys	Pro	Ile	Lys	Ala	Ile	Met	Asn	Leu				
	435						440					445							
Val	Thr	Gly	Val	Thr	Ser	Leu	Thr	Phe	Asn	Pro	Thr	Thr	Glu	Ile	Leu				
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<210> 4613
<211> 454
<212> DNA
<213> Homo sapiens
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<400> 4613

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<210> 4614

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4614

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Pro	Val	Thr	Cys	Leu	Ala	Pro	Thr	Ser	Asn	Glu	Phe	Thr	Arg	Gly	Asn
			20					25					30		
Glu	Phe	Thr	Asn	Gly	Asn	Leu	Thr	Met	Ser	Asn	Glu	Phe	His	Cys	Lys
		35					40					45			
Asp	Phe	Leu	Ile	Phe	Thr	Thr	Gln	Ile	Leu	Thr	Ile	Leu	Gln	Leu	Arg
	50					55					60				
Ser	Leu	Asn	Ile	Ile	Tyr	Asn	Lys	Gln	Asn	Leu	Val	Asn	Leu	Gln	Lys
65					70					75				80	
Ser	Asn	Ala	Leu	Lys	Lys	His	Gln	Ser	Leu	Cys	Met	Cys	Arg	Thr	Asp
			85						90					95	
Pro	Ala	Pro	Gln	Gly	Asn	Thr	Ala	Gly	Thr	Val	Pro	Arg	Thr	Leu	Thr
			100					105						110	
Ser	Val	Ser	Leu	Leu											
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<210> 4615

<211> 1350

<212> DNA

<213> Homo sapiens

<400> 4615

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 180
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 1350

<210> 4616

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4616

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			20					25					30		
Arg	Lys	Asp	Met	Asp	Glu	Val	Glu	Glu	Lys	Ser	Lys	Asp	Val	Ile	Asn
		35				40					45				
Phe	Thr	Ala	Glu	Lys	Leu	Ser	Val	Asp	Glu	Val	Ser	Gln	Leu	Val	Ile
	50					55					60				
Ser	Pro	Leu	Cys	Gly	Ala	Ile	Ser	Leu	Phe	Val	Gly	Thr	Thr	Arg	Asn

65	70								75				80			
Asn	Phe	Glu	Gly	Lys	Lys	Val	Ile	Ser	Leu	Glu	Tyr	Glu	Ala	Tyr	Leu	
				85					90					95		
Pro	Met	Ala	Glu	Asn	Glu	Val	Arg	Lys	Ile	Cys	Ser	Asp	Ile	Arg	Gln	
			100					105					110			
Lys	Trp	Pro	Val	Lys	His	Ile	Ala	Val	Phe	His	Leu	Leu	Gly	Leu	Val	
		115					120						125			
Pro	Val	Ser	Glu	Ala	Ser	Thr	Val	Ile	Ala	Val	Ser	Ser	Ala	His	Arg	
	130					135					140					
Ala	Ala	Ser	Leu	Glu	Ala	Val	Ser	Tyr	Ala	Ile	Asp	Ser	Leu	Lys	Ala	
145					150					155					160	
Lys	Val	Pro	Ile	Trp	Lys	Lys	Glu	Ile	Tyr	Glu	Glu	Ser	Ser	Thr	Trp	
				165					170					175		
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<211> 2266
<212> DNA
<213> Homo sapiens
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960

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 2100
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 2220
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 2266

<210> 4618

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4618

Met	Phe	Leu	Asp	Ser	Lys	Glu	Glu	Gly	Thr	Ser	Gln	Ala	Pro	Asn	Lys
1				5				10					15		
Asp	Pro	Thr	Ala	Ala	Ala	Ala	Ala	Leu	Asn	Gly	Gly	His	Cys	Leu	Ala

20					25					30					
Gln	Pro	Thr	Ala	Glu	Pro	Gly	Leu	Gly	Ala	Val	Val	Arg	Ser	Ile	Lys
35					40					45					
Val	Ser	Gly	Tyr	Leu	Asn	Leu	Leu	Ala	Asn	Thr	Ile	Asp	Asn	Phe	Thr
50					55					60					
His	Gly	Leu	Ala	Val	Ala	Ala	Ser	Phe	Leu	Val	Ser	Lys	Lys	Ile	Gly
65	70					75					80				
Leu	Leu	Thr	Thr	Met	Ala	Ile	Leu	Leu	His	Glu	Ile	Pro	His	Glu	Val
85					90					95					
Gly	Asp	Phe	Ala	Ile	Leu	Leu	Arg	Ala	Gly	Phe	Asp	Arg	Trp	Ser	Ala
100					105					110					
Ala	Lys	Leu	Gln	Leu	Ser	Thr	Ala	Leu	Gly	Gly	Leu	Leu	Gly	Ala	Gly
115					120					125					
Phe	Ala	Ile	Cys	Thr	Gln	Ser	Pro	Lys	Gly	Val	Glu	Glu	Thr	Ala	Ala
130					135					140					
Trp	Val	Leu	Pro	Phe	Thr	Ser	Gly	Gly	Phe	Leu	Tyr	Ile	Ala	Leu	Val
145	150					155					160				
Asn	Val	Leu	Pro	Asp	Leu	Leu	Glu	Glu	Glu	Asp	Pro	Trp	Arg	Ser	Leu
165					170					175					
Gln	Gln	Leu	Leu	Leu	Cys	Ala	Gly	Ile	Val	Val	Met	Val	Leu	Phe	
180					185					190					
Ser	Leu	Phe	Val	Asp											
195															

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<210> 4619
<211> 539
<212> DNA
<213> Homo sapiens
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<400> 4619
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180
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240
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300
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360
gggccccaa gaggagtcatt gtcctttctt gtgtcctatg ggtgagtcgg caaccactct
420
tgtgtggcag ttgctggcgt gaggtctgta acattgatgg ctaagagctt gtagatttgc
480
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539
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<210> 4620
<211> 103
<212> PRT
<213> Homo sapiens
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<400> 4620

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Met Gly Thr Thr Cys Leu Leu Phe Leu Pro Ser Thr Ser Arg Pro Met
 1           5           10           15
Thr Lys Phe His Arg Leu Phe Leu Leu Pro Thr Gly Tyr Gly Gln Gly
          20           25           30
Leu Gln Ala Arg Pro Asn Pro Arg Phe Pro Gly Arg Cys Thr Pro Gly
          35           40           45
Trp Glu Lys Leu Thr Asn Glu Ser Ser Trp Gln Pro Pro Gln Ala Pro
          50           55           60
Pro Asp Trp Ala Ser Trp Leu Cys Cys Gln Asp Tyr Asp Pro Leu Pro
65           70           75           80
Glu Ser Arg Arg Ser Pro Gln Ala Glu Arg Tyr Arg His Leu Cys Pro
          85           90           95
Tyr Leu Asn Gln Glu Val Pro
          100

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<210> 4621

<211> 2588

<212> DNA

<213> Homo sapiens

<400> 4621

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120
cttccatgag gagaccact ctgctcccac cctctgaaaa cctaaagcac agcccaaatac
180
ccccaccca gcagcatacc tagggagctc ctagtcttgg taaaacggca ggagtagggc
240
tggggatgct gagaaaggaa ccaggaatcc tgtccaggca ggtcctacct ctgcccatgt
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360
accctcatt gttcgcagct gatgtcactc gcagttgtga gcggccgcct ctcccgggga
420
caatgtggga ctgagcggcc cagccgccgt gccgccgcgc ccgccgccgc aggacagccc
480
cagcgaggcc atttccagca catagaagag agattggaaa ccaacgtgca gaactgccag
540
tcccctgaca cgctgtgccc caccactgac agcccagtgc tgaatgaacc ctgccagag
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gtgtctgtag tgagcttctg ccctagtgc ttttgagccg gccaggttgc agcgcggaca
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720
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780
gaagtgggca gcatcatcgg gaagaagggc gagactgtaa agcgaatccg ggagcagagc
840
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900
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960

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1080
cgagagacta cgggtgcccc ggtacagggtg gcaggggacc tgctcccaa ctccacagag
1140
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1260
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1320
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1380
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1500
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1560
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1620
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1680
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2100
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2160
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2220
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2280
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2400
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2460
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2520
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2580

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2588

<210> 4622

<211> 403

<212> PRT

<213> Homo sapiens

<400> 4622

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Thr Leu Thr Leu Arg Met Leu Met His Gly Lys Glu Val Gly Ser Ile
      20           25           30
Ile Gly Lys Lys Gly Glu Thr Val Lys Arg Ile Arg Glu Gln Ser Ser
      35           40           45
Ala Arg Ile Thr Ile Ser Glu Gly Ser Cys Pro Glu Arg Ile Thr Thr
      50           55           60
Ile Thr Gly Ser Thr Ala Ala Val Phe His Ala Val Ser Met Ile Ala
65           70           75           80
Phe Lys Leu Asp Glu Asp Leu Cys Ala Ala Pro Ala Asn Gly Gly Asn
      85           90           95
Val Ser Arg Pro Pro Val Thr Leu Arg Leu Val Ile Pro Ala Ser Gln
      100          105          110
Cys Gly Ser Leu Ile Gly Lys Ala Gly Thr Lys Ile Lys Glu Ile Arg
      115          120          125
Glu Thr Thr Gly Ala Gln Val Gln Val Ala Gly Asp Leu Leu Pro Asn
      130          135          140
Ser Thr Glu Arg Ala Val Thr Val Ser Gly Val Pro Asp Ala Ile Ile
145          150          155          160
Leu Cys Val Arg Gln Ile Cys Ala Val Ile Leu Glu Ser Pro Pro Lys
      165          170          175
Gly Ala Thr Ile Pro Tyr His Pro Ser Leu Ser Leu Gly Thr Val Leu
      180          185          190
Leu Ser Ala Asn Gln Gly Phe Ser Val Gln Gly Gln Tyr Gly Ala Val
      195          200          205
Thr Pro Ala Glu Val Thr Lys Leu Gln Gln Leu Ser Ser His Ala Val
      210          215          220
Pro Phe Ala Thr Pro Ser Val Val Pro Gly Leu Asp Pro Gly Thr Gln
225          230          235          240
Thr Ser Ser Gln Glu Phe Leu Val Pro Asn Asp Leu Ile Gly Cys Val
      245          250          255
Ile Gly Arg Gln Gly Ser Lys Ile Ser Glu Ile Arg Gln Met Ser Gly
      260          265          270
Ala His Ile Lys Ile Gly Asn Gln Ala Glu Gly Ala Gly Glu Arg His
      275          280          285
Val Thr Ile Thr Gly Ser Pro Val Ser Ile Ala Leu Ala Gln Tyr Leu
      290          295          300
Ile Thr Ala Cys Leu Glu Thr Ala Lys Ser Thr Ser Gly Gly Thr Pro
305          310          315          320
Gly Ser Ala Pro Ala Asp Leu Pro Thr Pro Phe Ser Pro Pro Leu Thr
      325          330          335
Ala Leu Pro Thr Ala Pro Pro Gly Leu Leu Gly Thr Pro Tyr Ala Ile
      340          345          350
Ser Leu Ser Asn Phe Ile Gly Leu Lys Pro Val Pro Phe Leu Ala Leu

```


aacatggccc tcggcaagaa ggcggctgac agcctgcagc agaatctgca gcgggactac
 1260
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 1380
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 1440
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 1500
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 2100
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 2220

<210> 4624

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4624

Met	Lys	Ser	Lys	Lys	Lys	Val	Glu	Gln	Pro	Val	Ile	Glu	Glu	Pro	Ala
1				5					10					15	
Leu	Lys	Arg	Lys	Lys	Lys	Lys	Lys	Arg	Lys	Glu	Ser	Gly	Val	Ala	Gly
			20					25					30		
Asp	Pro	Trp	Lys	Glu	Glu	Thr	Asp	Thr	Asp	Leu	Glu	Val	Val	Leu	Glu
			35				40					45			
Lys	Lys	Gly	Asn	Met	Asp	Glu	Ala	His	Ile	Asp	Gln	Val	Arg	Arg	Lys
			50			55				60					
Ala	Leu	Gln	Glu	Glu	Ile	Asp	Arg	Glu	Ser	Gly	Lys	Thr	Glu	Ala	Ser
65					70				75					80	
Glu	Thr	Arg	Lys	Trp	Thr	Gly	Thr	Gln	Phe	Gly	Gln	Trp	Asp	Thr	Ala
			85					90					95		
Gly	Phe	Glu	Asn	Glu	Asp	Gln	Lys	Leu	Lys	Phe	Leu	Arg	Leu	Met	Gly

```

                100                105                110
Gly Phe Lys Asn Leu Ser Pro Ser Phe Ser Arg Pro Ala Ser Thr Ile
                115                120                125
Ala Arg Pro Asn Met Ala Leu Gly Lys Lys Ala Ala Asp Ser Leu Gln
                130                135                140
Gln Asn Leu Gln Arg Asp Tyr Asp Arg Ala Met Ser Trp Lys Tyr Ser
145                150                155                160
Arg Gly Ala Gly Leu Gly Phe Ser Thr Ala Pro Asn Lys Ile Phe Tyr
                165                170                175
Ile Asp Arg Asn Ala Ser Lys Ser Val Lys Leu Glu Asp
                180                185

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<210> 4625

<211> 334

<212> DNA

<213> Homo sapiens

<400> 4625

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120
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180
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240
ctcctgcctg gggacaggaa gcccctgtac cattatgggc ggggcatgaa tcccgcctgac
300
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334

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<210> 4626

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4626

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Arg Glu Gln Arg Lys Leu Gln Glu Lys Glu Gln Gln Arg Arg Leu Glu
 1         5         10         15
Asp Met Gln Ala Leu Arg Arg Glu Glu Glu Arg Arg Gln Ala Glu Arg
        20         25         30
Glu Gln Glu Tyr Lys Arg Lys Gln Leu Glu Glu Gln Arg Gln Ser Glu
        35         40         45
Arg Leu Gln Arg Gln Leu Gln Glu His Ala Tyr Leu Lys Ser Leu
        50         55         60
Gln Gln Gln Gln Gln Gln Gln Leu Gln Lys Gln Gln Gln Gln Gln
65        70        75        80
Leu Leu Pro Gly Asp Arg Lys Pro Leu Tyr His Tyr Gly Arg Gly Met
        85        90        95
Asn Pro Ala Asp Lys Pro Ala Trp Ala Arg Glu Gly Glu Glu Arg
        100       105       110

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<210> 4627

<211> 1736

<212> DNA

<213> Homo sapiens

<400> 4627

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120
gtgcacgccc ggagtttga gctcttcca tcaagtggac ctgatttttg aggattagga
180
gaagaagctg aatttgttga agttgagcct gaagctaaac aggaaattct tgaaaacaaa
240
gatgtggttg ttcaacatgt tcattttgat ggacttgga ggactaaaga tgatatcatc
300
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360
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420
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660
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720
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 1736

<210> 4628

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4628

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Pro	Asp	Phe	Gly	Gly	Leu	Gly	Glu	Glu	Ala	Glu	Phe	Val	Glu	Val	Glu
			20					25				30			
Pro	Glu	Ala	Lys	Gln	Glu	Ile	Leu	Glu	Asn	Lys	Asp	Val	Val	Val	Gln
		35				40					45				
His	Val	His	Phe	Asp	Gly	Leu	Gly	Arg	Thr	Lys	Asp	Asp	Ile	Ile	Ile
	50					55					60				
Cys	Glu	Ile	Gly	Asp	Val	Phe	Lys	Ala	Lys	Asn	Leu	Ile	Glu	Val	Met
65				70						75				80	
Arg	Lys	Ser	His	Glu	Ala	Arg	Glu	Lys	Leu	Leu	Arg	Leu	Gly	Ile	Phe
			85					90					95		
Arg	Gln	Val	Asp	Val	Leu	Ile	Asp	Thr	Cys	Gln	Gly	Asp	Gly	Ala	Leu
			100					105					110		
Pro	Asn	Gly	Leu	Asp	Val	Thr	Phe	Glu	Val	Thr	Glu	Leu	Arg	Arg	Leu
		115					120					125			
Thr	Gly	Ser	Tyr	Asn	Thr	Met	Val	Gly	Asn	Asn	Glu	Gly	Ser	Met	Val
	130					135					140				
Leu	Gly	Leu	Lys	Leu	Pro	Asn	Leu	Leu	Gly	Arg	Ala	Glu	Lys	Val	Thr
145				150					155					160	
Phe	Gln	Phe	Ser	Tyr	Gly	Thr	Lys	Glu	Thr	Ser	Tyr	Gly	Leu	Ser	Phe
			165					170					175		
Phe	Lys	Pro	Arg	Pro	Gly	Asn	Phe	Glu	Arg	Asn	Phe	Ser	Val	Asn	Leu
		180					185					190			
Tyr	Lys	Val	Thr	Gly	Gln	Phe	Pro	Trp	Ser	Ser	Leu	Arg	Glu	Thr	Asp
	195					200					205				
Arg	Gly	Met	Ser	Ala	Glu	Tyr	Ser	Phe	Pro	Ile	Trp	Lys	Thr	Ser	His
	210					215					220				
Thr	Val	Lys	Trp	Glu	Gly	Val	Trp	Arg	Glu	Leu	Gly	Cys	Leu	Ser	Arg
225				230						235				240	
Thr	Ala	Ser	Phe	Ala	Val	Arg	Lys	Glu	Ser	Gly	His	Ser	Leu	Lys	Ser
			245					250					255		
Ser	Leu	Ser	His	Ala	Met	Val	Ile	Asp	Ser	Arg	Asn	Ser	Ser	Ile	Leu
		260					265					270			
Pro	Arg	Arg	Gly	Ala	Leu	Leu	Lys	Val	Asn	Gln	Glu	Leu	Ala	Gly	Tyr
		275					280					285			
Thr	Gly	Gly	Asp	Val	Ser	Phe	Ile	Lys	Glu	Asp	Phe	Glu	Leu	Gln	Leu
	290					295					300				
Asn	Lys	Gln	Leu	Ile	Phe	Asp	Ser	Val	Phe	Ser	Ala	Ser	Phe	Trp	Gly

305 310 315 320
 Gly Met Leu Val Pro Ile Gly Asp Lys Pro Ser Ser Ile Ala Asp Arg
 325 330 335
 Phe Tyr Leu Gly Gly Pro Thr Ser Val Arg Gly Phe Ser Met His Ser
 340 345 350
 Ile Gly Pro Gln Ser Glu Gly Asp Tyr Leu Gly Gly Glu Ala Tyr Trp
 355 360 365
 Ala Gly Gly Leu His Leu Tyr Thr Pro Leu Pro Phe Arg Pro Gly Gln
 370 375 380
 Gly Gly Phe Gly Glu Leu Phe Arg Thr His Phe Phe Leu Asn Ala Gly
 385 390 395 400
 Asn Leu Cys Asn Leu Asn Tyr Gly Glu Gly Pro Lys Ala His Ile Arg
 405 410 415
 Lys Leu Ala Glu Cys Ile Arg Trp Ser Tyr Gly Ala Gly Ile Val Leu
 420 425 430
 Arg Leu Gly Asn Ile Ala Arg Leu Glu Leu Asn Tyr Cys Val Pro Met
 435 440 445
 Gly Val Gln Thr Gly Asp Arg Ile Cys Asp Gly Val Gln Phe Gly Ala
 450 455 460
 Gly Ile Arg Phe Leu
 465

<210> 4629

<211> 706

<212> DNA

<213> Homo sapiens

<400> 4629

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 180
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 240
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<210> 4630

<211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4630
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 35 40 45
 Ser Trp Ala Leu Arg Val Ser Val Phe Pro Gln Ile Gly Lys Met Arg
 50 55 60
 Gly Arg Gly Gly Tyr Trp Gly Gln Ala Ser Ala Gln Pro Trp Val Leu
 65 70 75 80
 Leu Glu Pro Gly Leu Glu Pro Glu Val Gly Arg Val Ser Lys Leu Ser
 85 90 95
 Ser Trp Ile Pro Ile Cys Arg Thr Ala Pro Arg Thr Arg Ser Gly Val
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 Arg Ala His Pro Leu Ala Arg Ile Leu Gly Ser Leu Gly His Lys Ala
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 Gly Gln Gly Thr Arg Asp Pro Pro Thr Gln Glu Thr
 130 135 140

<210> 4631
 <211> 2756
 <212> DNA
 <213> Homo sapiens

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 gagtcggccg gctgggactt gcagatcgcg ctagcgagct tttatgagga cggaggggat
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 360
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 420
 gccaaagagc atggagctgt agctgtggag cgagtgaacca agagccctgg agagaccagt
 480
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 540
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 720

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2280
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2340

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 2460
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<210> 4632

<211> 372

<212> PRT

<213> Homo sapiens

<400> 4632

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Gly	Ala	Glu	Glu	Asp	Arg	Ala	Arg	Phe	Phe	Leu	Glu	Ser	Ala	Gly	Trp
			20					25					30		
Asp	Leu	Gln	Ile	Ala	Leu	Ala	Ser	Phe	Tyr	Glu	Asp	Gly	Gly	Asp	Glu
		35					40					45			
Asp	Ile	Val	Thr	Ile	Ser	Gln	Ala	Thr	Pro	Ser	Ser	Val	Ser	Arg	Gly
		50				55					60				
Thr	Ala	Pro	Ser	Asp	Asn	Arg	Val	Thr	Ser	Phe	Arg	Asp	Leu	Ile	His
65					70					75				80	
Asp	Gln	Asp	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Gly	Gln	Arg	Ser	Arg	Phe
			85						90					95	
Tyr	Ala	Gly	Gly	Ser	Glu	Arg	Ser	Gly	Gln	Gln	Ile	Val	Gly	Pro	Pro
			100					105					110		
Arg	Lys	Lys	Ser	Pro	Asn	Glu	Leu	Val	Asp	Asp	Leu	Phe	Lys	Gly	Ala
		115				120					125				
Lys	Glu	His	Gly	Ala	Val	Ala	Val	Glu	Arg	Val	Thr	Lys	Ser	Pro	Gly
		130				135					140				
Glu	Thr	Ser	Lys	Pro	Arg	Pro	Phe	Ala	Gly	Gly	Gly	Tyr	Arg	Leu	Gly
145				150					155					160	
Ala	Ala	Pro	Glu	Glu	Ser	Ala	Tyr	Val	Ala	Gly	Glu	Lys	Arg	Gln	
			165					170						175	
His	Ser	Ser	Gln	Asp	Val	His	Val	Val	Leu	Lys	Leu	Trp	Lys	Ser	Gly
			180					185					190		
Phe	Ser	Leu	Asp	Asn	Gly	Glu	Leu	Arg	Ser	Tyr	Gln	Asp	Pro	Ser	Asn
		195				200						205			
Ala	Gln	Phe	Leu	Glu	Ser	Ile	Arg	Arg	Gly	Glu	Val	Pro	Ala	Glu	Leu
		210				215					220				
Arg	Arg	Leu	Ala	His	Gly	Gly	Gln	Val	Asn	Leu	Asp	Met	Glu	Asp	His
225				230					235					240	
Arg	Asp	Glu	Asp	Phe	Val	Lys	Pro	Lys	Gly	Ala	Phe	Lys	Ala	Phe	Thr
			245						250					255	
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[illegible]

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<210> 4633
<211> 873
<212> DNA
<213> Homo sapiens
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120
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180
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240
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300
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360
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420
atgcatcagg agcagccgat ccaggatatgt gatggcaaag ggagacagag acttgatgcc
480
cagcacaggc agcatgatcc ccagccacac ttccagtccc tcggtgaggt tggcaaaacc
540
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600
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660
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720
caacatgggtg aacagacagt gggccctggg tcaagcaggt tttgccaacc tcaactgaggg
780
actgaaagtg tggctgggga tcatgctgcc tgtgctgggc atcaagtctc tgtctccctt
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873

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<210> 4634

<211> 242
 <212> PRT
 <213> Homo sapiens

<400> 4634

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Met Leu Gln Glu Leu Asp Lys Thr Pro Gly Glu Ser Leu His Gly Tyr
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Arg Ile Cys Ile Gln Ala Ile Leu Gln Asp Lys Pro Lys Ile Ala Thr
      20           25           30
Ala Asn Leu Gly Lys Phe Leu Glu Leu Leu Arg Ser His Gln Ser Arg
      35           40           45
Pro Ala Lys Cys Leu Thr Ile Met Trp Ala Leu Gly Gln Ala Gly Phe
      50           55           60
Ala Asn Leu Thr Glu Gly Leu Lys Val Trp Leu Gly Ile Met Leu Pro
      65           70           75           80
Val Leu Gly Ile Lys Ser Leu Ser Pro Phe Ala Ile Thr Tyr Leu Asp
      85           90           95
Arg Leu Leu Leu Met His Pro Asn Leu Thr Lys Gly Phe Gly Met Ile
      100          105          110
Gly Pro Lys Asp Phe Phe Pro Leu Leu Asp Phe Ala Tyr Met Pro Asn
      115          120          125
Asn Ser Leu Thr Pro Ser Leu Gln Glu Gln Leu Cys Gln Leu Tyr Pro
      130          135          140
Arg Leu Lys Val Leu Ala Phe Gly Ala Lys Pro Asp Ser Thr Leu His
      145          150          155          160
Thr Tyr Phe Pro Ser Phe Leu Ser Arg Ala Thr Pro Ser Cys Pro Pro
      165          170          175
Glu Met Lys Lys Glu Leu Leu Ser Ser Leu Thr Glu Cys Leu Thr Val
      180          185          190
Asp Pro Leu Ser Ala Ser Val Trp Arg Gln Leu Tyr Pro Lys His Leu
      195          200          205
Ser Gln Ser Ser Leu Leu Leu Glu His Leu Leu Ser Ser Trp Glu Gln
      210          215          220
Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln Ser Leu
      225          230          235          240
Lys Leu

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<210> 4635
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 4635

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agtggggccc gaggaggaag gccggtggtg tgtgggcaga gccagccagt ggtggccttc
180
ctcctccoga agatgagttt tgtagcccag gtgtttgcac actcacactt gctcactccc
240
tcacacacaa aacctcact ctttgctttt tctggggaga gggaggccac tggcagaagc
300

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 360
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 384

<210> 4636
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 4636
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 20 25 30
 Lys Glu Val Lys Trp Gly Pro Arg Lys Ala Gly Gly Val Trp Ala
 35 40 45
 Glu Pro Ala Ser Gly Gly Leu Pro Pro Pro Glu Asp Glu Phe Cys Ser
 50 55 60
 Pro Gly Val Cys Thr Leu Thr Leu Ala His Ser Leu Thr His Lys Thr
 65 70 75 80
 Leu Thr Leu Cys Phe Phe Trp Gly Glu Gly Gly His Trp Gln Lys Arg
 85 90 95
 Leu Pro Trp Pro Gln Ser Val Pro Ile Leu Ile Phe
 100 105

<210> 4637
 <211> 2162
 <212> DNA
 <213> Homo sapiens

<400> 4637
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 240
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 360
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720
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780
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840
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960
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2162

<210> 4638

<211> 446
 <212> PRT
 <213> Homo sapiens

<400> 4638

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          20          25          30
Thr Lys Ala Gly Tyr Lys Leu Phe Ser Leu Ser Ser Val Glu Gln Leu
          35          40          45
Asp Gln Val His Gly Ser Asn Glu Ile Pro Asp Val Tyr Ile Val Glu
          50          55          60
Arg Leu Phe Ser Ser Ser Leu Val Val Val Val Ser His Thr Lys Pro
          65          70          75          80
Arg Gln Met Asn Val Tyr His Phe Lys Lys Gly Thr Glu Ile Cys Asn
          85          90          95
Tyr Ser Tyr Ser Ser Asn Ile Leu Ser Ile Arg Leu Asn Arg Gln Arg
          100          105          110
Leu Leu Val Cys Leu Glu Glu Ser Ile Tyr Ile His Asn Ile Lys Asp
          115          120          125
Met Lys Leu Leu Lys Thr Leu Leu Asp Ile Pro Ala Asn Pro Thr Gly
          130          135          140
Leu Cys Ala Leu Ser Ile Asn His Ser Asn Ser Tyr Leu Ala Tyr Pro
          145          150          155          160
Gly Ser Leu Thr Ser Gly Glu Ile Val Leu Tyr Asp Gly Asn Ser Leu
          165          170          175
Lys Thr Val Cys Thr Ile Ala Ala His Glu Gly Thr Leu Ala Ala Ile
          180          185          190
Thr Phe Asn Ala Ser Gly Ser Lys Leu Ala Ser Ala Ser Glu Lys Gly
          195          200          205
Thr Val Ile Arg Val Phe Ser Val Pro Asp Gly Gln Lys Leu Tyr Glu
          210          215          220
Phe Arg Arg Gly Met Lys Arg Tyr Val Thr Ile Ser Ser Leu Val Phe
          225          230          235          240
Ser Met Asp Ser Gln Phe Leu Cys Ala Ser Ser Asn Thr Glu Thr Val
          245          250          255
His Ile Phe Lys Leu Glu Gln Val Thr Asn Ser Arg Pro Glu Glu Pro
          260          265          270
Ser Thr Trp Ser Gly Tyr Met Gly Lys Met Phe Met Ala Ala Thr Asn
          275          280          285
Tyr Leu Pro Thr Gln Val Ser Asp Met Met His Gln Asp Arg Ala Phe
          290          295          300
Ala Thr Ala Arg Leu Asn Phe Ser Gly Gln Arg Asn Ile Cys Thr Leu
          305          310          315          320
Ser Thr Ile Gln Lys Leu Pro Arg Leu Leu Val Ala Ser Ser Ser Gly
          325          330          335
His Leu Tyr Met Tyr Asn Leu Asp Pro Gln Asp Gly Gly Glu Cys Val
          340          345          350
Leu Ile Lys Thr His Ser Leu Leu Gly Ser Gly Thr Thr Glu Glu Asn
          355          360          365
Lys Glu Asn Asp Leu Arg Pro Ser Leu Pro Gln Ser Tyr Ala Ala Thr
          370          375          380
Val Ala Arg Pro Ser Ala Ser Ser Ala Ser Thr Val Pro Gly Tyr Ser

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385					390					395				400	
Glu	Asp	Gly	Gly	Ala	Leu	Arg	Gly	Glu	Val	Ile	Pro	Glu	His	Glu	Phe
				405					410					415	
Ala	Thr	Gly	Pro	Val	Cys	Leu	Asp	Asp	Glu	Asn	Glu	Phe	Pro	Pro	Ile
			420					425					430		
Ile	Leu	Cys	Arg	Gly	Asn	Gln	Lys	Gly	Lys	Thr	Lys	Gln	Ser		
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<210> 4639
 <211> 1007
 <212> DNA
 <213> Homo sapiens

<400> 4639
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 120
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 180
 cccactagat cccacaaagg gcaaactcaa agatgaaaca aaggcaacgc catcaataac
 240
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 aattctcttt taaaaaatta acagtaaaaa taggagttac ttactatcta gatgaacaca
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 480
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 720
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 780
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 900
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 1007

<210> 4640
 <211> 71
 <212> PRT
 <213> Homo sapiens

<400> 4640

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Pro Cys Phe Phe Leu Glu Arg Asn Ile Pro Asn Phe Leu Leu Leu
      20           25           30
Leu Arg Arg Ser Phe Ala Leu Val Ala Gln Ala Arg Val Gln Trp Arg
      35           40           45
Asp Leu Ser Ser Leu Gln Pro Pro Pro Arg Leu Lys Arg Phe Ser
      50           55           60
His Leu Ser Leu Pro Ser Ser
65           70

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<210> 4641

<211> 1873

<212> DNA

<213> Homo sapiens

<400> 4641

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120
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<212> PRT

<213> Homo sapiens

<400> 4642

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<212> PRT

<213> Homo sapiens

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Gln	Arg	Pro	Glu	Glu	Thr	Ser	Ala	Gln	Gly	Phe	Arg	Gln	Leu	Leu	Glu
			100					105					110		
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<211> 1725

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4646

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			20					25					30		
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Glu	Lys	Arg	Lys	Gln	Tyr	Asp	Thr	Tyr	Gly	Glu	Glu	Gly	Leu	Lys	Asp
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<212> DNA

<213> Homo sapiens

<400> 4647

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<210> 4650

<211> 965

<212> PRT

<213> Homo sapiens

<400> 4650

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		20						25					30		
Glu	Val	Ala	Val	Lys	Val	Cys	Leu	Leu	Asn	Phe	Met	Ile	Thr	Pro	Leu
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Gly	Leu	Gln	Asp	Gln	Leu	Leu	Gly	Ile	Val	Ala	Ala	Lys	Glu	Lys	Pro
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Glu	Leu	Glu	Glu	Lys	Lys	Asn	Gln	Leu	Ile	Val	Glu	Ser	Ala	Lys	Asn
65				70					75					80	
Lys	Lys	His	Leu	Lys	Glu	Ile	Glu	Asp	Lys	Ile	Leu	Glu	Val	Leu	Ser
			85					90						95	
Met	Ser	Lys	Gly	Asn	Ile	Leu	Glu	Asp	Glu	Thr	Ala	Ile	Lys	Val	Leu
			100					105					110		
Ser	Ser	Ser	Lys	Val	Leu	Ser	Glu	Glu	Ile	Ser	Glu	Lys	Gln	Lys	Val
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Ala	Asn	Ile	Glu	Pro	Met	Tyr	Gln	Tyr	Ser	Leu	Thr	Trp	Phe	Ile	Asn
				165					170						175
Leu	Tyr	Met	His	Ser	Leu	Thr	His	Ser	Thr	Lys	Ser	Glu	Glu	Leu	Asn
			180					185					190		
Leu	Arg	Ile	Lys	Tyr	Ile	Ile	Asp	His	Phe	Thr	Leu	Ser	Ile	Tyr	Asn
		195					200					205			
Asn	Val	Cys	Arg	Ser	Leu	Phe	Glu	Lys	Asp	Lys	Leu	Leu	Phe	Ser	Leu
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Pro	Asn	Pro	Ala	Pro	Gln	Trp	Leu	Ser	Glu	Lys	Ala	Trp	Ala	Glu	Ile
			260					265					270		
Val	Arg	Ala	Ser	Ala	Leu	Pro	Lys	Leu	His	Gly	Leu	Met	Glu	His	Leu
	275						280					285			
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Lys	Met	Val	Ile	Leu	Arg	Cys	Leu	Arg	Pro	Asp	Lys	Met	Val	Pro	Ala
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Leu	Lys	Phe	Ala	Asp	Asp	Leu	Gly	Met	Gly	Gly	Thr	Arg	Thr	Gln	Thr
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Ile	Ser	Leu	Gly	Gln	Gly	Gln	Gly	Pro	Ile	Ala	Ala	Lys	Met	Ile	Asn
			405						410					415	
Asn	Ala	Ile	Lys	Asp	Gly	Thr	Trp	Val	Val	Leu	Gln	Asn	Cys	His	Leu
		420						425				430			
Ala	Ala	Ser	Trp	Met	Pro	Thr	Leu	Glu	Lys	Ile	Cys	Glu	Glu	Val	Ile
		435					440					445			
Val	Pro	Glu	Ser	Thr	Asn	Ala	Arg	Phe	Arg	Leu	Trp	Leu	Thr	Ser	Tyr
	450					455					460				
Pro	Ser	Glu	Lys	Phe	Pro	Val	Ser	Ile	Leu	Gln	Asn	Gly	Ile	Lys	Met
465					470					475					480
Thr	Asn	Glu	Pro	Pro	Lys	Gly	Leu	Arg	Ala	Asn	Leu	Leu	Arg	Ser	Tyr
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565										570					575				
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			580					585					590						
Arg	Arg	Leu	Leu	Leu	Ser	Leu	Leu	Ser	Met	Phe	Tyr	Cys	Lys	Glu	Ile				
		595					600					605							
Glu	Glu	Asp	Tyr	Tyr	Ser	Leu	Ala	Pro	Gly	Asp	Thr	Tyr	Tyr	Ile	Pro				
		610				615					620								
Pro	His	Gly	Ser	Tyr	Gln	Ser	Tyr	Ile	Asp	Tyr	Leu	Arg	Asn	Leu	Pro				
625					630				635						640				
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Thr	Lys	Asp	Asn	Gln	Glu	Thr	Asn	Gln	Leu	Phe	Glu	Gly	Val	Leu	Leu				
			660					665					670						
Thr	Leu	Pro	Arg	Gln	Ser	Gly	Gly	Ser	Gly	Lys	Ser	Pro	Gln	Glu	Val				
		675					680					685							
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		690				695					700								
Asp	Leu	Glu	Glu	Val	Met	Lys	Leu	Tyr	Pro	Val	Val	Tyr	Glu	Glu	Ser				
705					710				715						720				
Met	Asn	Thr	Val	Leu	Arg	Gln	Glu	Leu	Ile	Arg	Phe	Asn	Arg	Leu	Thr				
				725				730						735					
Lys	Val	Val	Arg	Arg	Ser	Leu	Ile	Asn	Leu	Gly	Arg	Ala	Ile	Lys	Gly				
			740					745					750						
Gln	Val	Leu	Met	Ser	Ser	Glu	Leu	Glu	Glu	Val	Phe	Asn	Ser	Met	Leu				
		755					760					765							
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		770				775					780								
Lys	Pro	Leu	Gly	Gly	Tyr	Val	Ala	Asp	Leu	Leu	Ala	Arg	Leu	Thr	Phe				
785					790				795						800				
Phe	Gln	Glu	Trp	Ile	Asp	Lys	Gly	Pro	Pro	Val	Val	Phe	Trp	Ile	Ser				
				805				810						815					
Gly	Phe	Tyr	Phe	Thr	Gln	Ser	Phe	Leu	Thr	Gly	Val	Ser	Gln	Asn	Tyr				
			820					825					830						
Ala	Arg	Lys	Tyr	Thr	Ile	Pro	Ile	Asp	His	Ile	Gly	Phe	Glu	Phe	Glu				
		835					840					845							
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<210> 4651

<211> 869

<212> DNA

<213> Homo sapiens

<400> 4651

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<210> 4652

<211> 289

<212> PRT

<213> Homo sapiens

<400> 4652

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20           25           30
Gly Ala Ala Ser Ala Val Ser Leu Ala Gly Ala Ser Leu Val Leu Ser
35           40           45
Leu Leu Gln Arg Val Ala Ser Tyr Ala Arg Lys Trp Gln Gln Met Arg
50           55           60
Pro Ile Pro Thr Val Ala Arg Ala Tyr Pro Leu Val Gly His Ala Leu
65           70           75           80
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Thr Glu Glu Tyr Arg His Met Pro Leu Leu Lys Leu Trp Val Gly Pro

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<212> DNA
<213> Homo sapiens
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120
gtttgaacct ctaacaaaaa ggaacgaaga tgccgaggag cctgcctacg gagacacggc
180
cagtaacgga gatccccaga tccacgtggg actcctgcgc gacagtggca gcgagtgtct
240
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cagaccagcc ctccgtacct agagccctgt tgcattgggtg tcgactccat cctggggcac
420
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540
gagcggccca gccgccgggc ccgagggtcg ccttttgttc ggagtggcac gattgtccgt
600
tccagacat tctcgcttgg agcacgaagc cagtatgttt gcagacttta tcgtagtga
660

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 780
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<210> 4654

<211> 255

<212> PRT

<213> Homo sapiens

<400> 4654

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			20					25					30		
Glu	Thr	Asn	Thr	Glu	Asp	Leu	Phe	Leu	Glu	Glu	Ala	Ala	Ser	Leu	Val
		35				40						45			
Lys	Glu	Arg	Pro	Ser	Arg	Arg	Ala	Arg	Gly	Ser	Pro	Phe	Val	Arg	Ser
		50				55					60				
Gly	Thr	Ile	Val	Arg	Ser	Gln	Thr	Phe	Ser	Pro	Gly	Ala	Arg	Ser	Gln
65					70				75					80	
Tyr	Val	Cys	Arg	Leu	Tyr	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Pro
			85					90						95	
Arg	Lys	Ser	Pro	Phe	Val	Arg	Asn	Thr	Leu	Glu	Arg	Arg	Thr	Leu	Arg
			100					105					110		
Tyr	Lys	Gln	Ser	Cys	Arg	Ser	Ser	Leu	Ala	Glu	Leu	Met	Ala	Arg	Thr
		115				120						125			
Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu	Gln	Ala	Ser	Arg	Thr	Arg	Gln	Arg
		130				135					140				
Gln	Leu	Asn	Glu	Glu	Leu	Cys	Ala	Leu	Arg	Glu	Leu	Arg	Gln	Arg	Leu
145					150				155					160	
Glu	Asp	Ala	Gln	Leu	Arg	Gly	Gln	Thr	Asp	Leu	Pro	Pro	Trp	Val	Leu
			165					170						175	
Arg	Asp	Glu	Arg	Leu	Arg	Gly	Leu	Leu	Arg	Glu	Ala	Glu	Arg	Gln	Thr
		180					185						190		
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Gly Arg Gln His His Gly Arg Pro
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140

<210> 4657
<211> 723
<212> DNA
<213> Homo sapiens

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120
gagtcaggcc tagggaaatc caccctcatc aacagcctct tcctcaccaa cctctatgag
180
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240
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420
cgagtccact gctgcctcta cttcatctca cccttcggcc gggctcggc ccctagatgt
480
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gccctgatgc ccaggaaac ccaggccctc aagcagaaga tccgggatca gttgaaggaa
600
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720
gta
723

<210> 4658
<211> 233
<212> PRT
<213> Homo sapiens

<400> 4658
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Glu Ser Gly Leu Gly Lys Ser Thr Leu Ile Asn Ser Leu Phe Leu Thr
35 40 45
Asn Leu Tyr Glu Asp Arg Gln Val Pro Glu Ala Ser Ala Arg Leu Thr
50 55 60
Gln Thr Leu Ala Ile Glu Arg Arg Gly Val Glu Ile Glu Glu Gly Gly
65 70 75 80
Val Lys Val Lys Leu Thr Leu Val Asp Thr Pro Gly Phe Gly Asp Ser

85								90				95			
Val	Asp	Cys	Ser	Asp	Cys	Trp	Leu	Pro	Val	Val	Lys	Phe	Ile	Glu	Glu
100								105				110			
Gln	Phe	Glu	Gln	Tyr	Leu	Arg	Asp	Glu	Ser	Gly	Leu	Asn	Arg	Lys	Asn
115								120				125			
Ile	Gln	Asp	Ser	Arg	Val	His	Cys	Cys	Leu	Tyr	Phe	Ile	Ser	Pro	Phe
130								135				140			
Gly	Arg	Ala	Pro	Ala	Pro	Arg	Cys	Gly	Phe	Leu	Arg	Ala	Ile	His	Glu
145								150				155			
Lys	Val	Asn	Ile	Ile	Pro	Val	Ile	Gly	Lys	Ala	Asp	Ala	Leu	Met	Pro
165								170				175			
Gln	Glu	Thr	Gln	Ala	Leu	Lys	Gln	Lys	Ile	Arg	Asp	Gln	Leu	Lys	Glu
180								185				190			
Glu	Glu	Ile	His	Ile	Tyr	Gln	Phe	Pro	Glu	Cys	Asp	Ser	Asp	Glu	Asp
195								200				205			
Glu	Asp	Phe	Lys	Arg	Gln	Asp	Ala	Glu	Met	Lys	Glu	Ser	Ile	Pro	Phe
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<210> 4659
<211> 864
<212> DNA
<213> Homo sapiens
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120
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180
caactggcag acaggcatgt gtgactgttt cagcgactgc ggagtctgtc tctgtggcac
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540
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600
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720
tataaaccaa atgaaatatt ttactgataa gattcttcat gcttctttgc tctctttaa
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840
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tttcctttttt cttttttttt ttgtg
864

<210> 4660
<211> 192
<212> PRT
<213> Homo sapiens

<400> 4660
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20 25 30
Ser Val Arg Ala Phe His His Gln Phe Leu Glu Ser Thr His Gly Ser
35 40 45
Pro Ser Val Asp Ile Ser Leu Asp Leu Ala Lys Ser Thr Met Arg Thr
50 55 60
Ala Lys Ser Cys His Ile Val Ile Thr Asn Arg Ser Arg Asp Ala Ile
65 70 75 80
Ser Gly Pro Val Glu Ser Pro His Cys Asp Ala Cys Ser Thr Gln Thr
85 90 95
Ala Phe Ile His Ile Ser Cys Asn Leu Thr Pro Lys Ala Arg Glu Thr
100 105 110
Lys Cys Ala Thr Glu Thr Asp Ser Ala Val Ala Glu Thr Val Thr His
115 120 125
Ala Cys Leu Pro Val Gly Val Leu Gly Gly Arg Thr Gly Thr Asp Ser
130 135 140
Arg Leu Gly His Asn Asp His Arg Arg Leu Ser Leu His Phe Gln Cys
145 150 155 160
Arg Ala Phe His Val Val Phe Ile Cys Gly Glu Ile Leu Ser Gln Ala
165 170 175
Thr Arg His Phe Leu Leu Gly Thr Leu Phe Thr Asn Phe His Cys Phe
180 185 190

<210> 4661
<211> 153
<212> DNA
<213> Homo sapiens

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<210> 4662
<211> 51
<212> PRT
<213> Homo sapiens

<400> 4662
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Val Glu Val	Val Gln Asn Glu	Pro Phe Glu Asp	Pro His His Gly His
	35	40	45
Gly Gln Phe			
50			

<210> 4663
 <211> 1550
 <212> DNA
 <213> Homo sapiens

<400> 4663
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 480
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 720
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 1020
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gtcctctca gagtccagtc cccaggcctc cagcgctgtc agctgcaccc tggcattctc
 1260
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 1320
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 1380
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 1440
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<210> 4664
 <211> 347
 <212> PRT
 <213> Homo sapiens

<400> 4664

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Ser	Asp	Glu	Ser	Asp	Glu	Val	Ile	Leu	Lys	Asp	Leu	Glu	Val	Leu	Ala
			20					25					30		
Glu	Ile	Ala	Ser	Ser	Pro	Ala	Gly	Gln	Thr	Asp	Asp	Pro	Gly	Pro	Leu
		35					40					45			
Asp	Gly	Pro	Asp	Leu	Gln	Ala	Ser	His	Ser	Glu	Leu	Gln	Val	Pro	Thr
	50				55					60					
Pro	Gly	Arg	Ala	Gly	Leu	Asn	Thr	Ser	Gly	Thr	Lys	Gly	Leu	Glu	
65					70				75					80	
Cys	Ser	Pro	Ser	Thr	Pro	Thr	Met	Asn	Ser	Tyr	Phe	Tyr	Lys	Phe	Met
				85				90						95	
Ile	Asn	Leu	Leu	Lys	Arg	Phe	Ser	Ser	Glu	Arg	Lys	Leu	Leu	Glu	Val
			100					105					110		
Arg	Gly	Pro	Phe	Ile	Ile	Arg	Gln	Leu	Cys	Leu	Leu	Leu	Asn	Ala	Glu
		115					120					125			
Asn	Ile	Phe	His	Ser	Met	Ala	Asp	Ile	Leu	Leu	Arg	Glu	Glu	Asp	Leu
	130					135					140				
Lys	Phe	Ala	Ser	Thr	Met	Val	His	Ala	Leu	Asn	Thr	Ile	Leu	Leu	Thr
145					150				155					160	
Ser	Thr	Glu	Leu	Phe	Gln	Leu	Arg	Asn	Gln	Leu	Lys	Asp	Leu	Lys	Thr
			165					170					175		
Leu	Glu	Ser	Gln	Asn	Leu	Phe	Cys	Cys	Leu	Tyr	Arg	Ser	Trp	Cys	His
			180					185					190		
Asn	Pro	Val	Thr	Thr	Val	Ser	Leu	Cys	Phe	Leu	Thr	Gln	Asn	Tyr	Arg
		195					200					205			
His	Ala	Tyr	Asp	Leu	Ile	Gln	Lys	Phe	Gly	Asp	Leu	Glu	Val	Thr	Val
	210					215					220				
Asp	Phe	Leu	Ala	Glu	Val	Asp	Lys	Leu	Val	Gln	Leu	Ile	Glu	Cys	Pro
225					230					235				240	
Ile	Phe	Thr	Tyr	Leu	Arg	Leu	Gln	Leu	Leu	Asp	Val	Lys	Asn	Asn	Pro
			245					250						255	
Tyr	Leu	Ile	Lys	Ala	Leu	Tyr	Gly	Leu	Leu	Met	Leu	Leu	Pro	Gln	Ser
		260					265						270		
Ser	Ala	Phe	Gln	Leu	Leu	Ser	His	Arg	Leu	Gln	Cys	Val	Pro	Asn	Pro

	275		280		285										
Glu	Leu	Leu	Gln	Thr	Glu	Asp	Ser	Leu	Lys	Ala	Ala	Pro	Lys	Ser	Gln
	290					295					300				
Lys	Ala	Asp	Ser	Pro	Ser	Ile	Asp	Tyr	Ala	Glu	Leu	Leu	Gln	His	Phe
305					310					315				320	
Glu	Lys	Val	Gln	Asn	Lys	His	Leu	Glu	Val	Arg	His	Gln	Arg	Ser	Gly
			325					330					335		
Arg	Gly	Asp	His	Leu	Asp	Arg	Arg	Val	Val	Leu					
			340				345								

<210> 4665

<211> 1043

<212> DNA

<213> Homo sapiens

<400> 4665

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120
aaagagaaag agccagtggg tgttgagaca gtagaagaga aaaaggaacc taccctagt
180
tgtccacctt tacgaagccg agcatacaca ccacctgaag atctccagag tcgtttggaa
240
tcttacgtta aagaagtttt tggttcatct ctccctagta attggcaaga catctccctg
300
gaagatagtc gtctaaagtt caatcttctg gctcatttag ctgatgactt gggtcattga
360
gtccctaact ccagactcca ccagatgtgc aggggtagag atgttcttga tttctataat
420
gtccctatct aagatagatc taaatttgat gaactcagtg ccagtaatct gcccccaat
480
ttgaaaatca cttggagtta ctaagcaatt cggaagagaa acacattgaa atcactgtct
540
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600
cagaactgtt ctctaaaccc actttttctg tagaggaatg tatcatcttt ttttttctca
660
tattacaaat ggacaaataa cggactttct attttcatat ttgctgaaac cattttttta
720
atgaaattag gtcattatct atgaaaagtt ttgagagggc actgtcaact tgggtttaag
780
acaggaggac attgcaagtt cacacctttc ataagcataa agtagttgca agaaagtatt
840
ttcatcctgt taggattcat atctaagata gagttatgca ttgcacatac acaaataaac
900
ttttattaga tagataccta taaaagaaac ataaaagtat gttgtgtatt actgacagtt
960
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1020
aaaaaaaaaa aaaaaaaaaa aaa
1043

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<210> 4666

<211> 167
 <212> PRT
 <213> Homo sapiens

<400> 4666
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 20 25 30
 Arg Glu Phe Trp Ser Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val
 35 40 45
 Glu Thr Val Glu Glu Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu
 50 55 60
 Arg Ser Arg Ala Tyr Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu
 65 70 75 80
 Ser Tyr Val Lys Glu Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln
 85 90 95
 Asp Ile Ser Leu Glu Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His
 100 105 110
 Leu Ala Asp Asp Leu Gly His Val Val Pro Asn Ser Arg Leu His Gln
 115 120 125
 Met Cys Arg Val Arg Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln
 130 135 140
 Asp Arg Ser Lys Phe Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn
 145 150 155 160
 Leu Lys Ile Thr Trp Ser Tyr
 165

<210> 4667
 <211> 1031
 <212> DNA
 <213> Homo sapiens

<400> 4667
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 120
 cctctgctgg aggggaaagc ccgctcctgt ttgctatga ccgagcccca ggttgccctt
 180
 tcagatgcca ccaacattga ggcttccatc agagaggagg acagcttcta tgtcataaac
 240
 ggtcacaaat ggtggatcac aggcacctcg gatcctcgtt gccaaactctg tgtgtttatg
 300
 ggaaaaacag acccacatgc accaagacac cggcagcagt ctgtgctctt ggttcccatg
 360
 gataccccag ggataaaaat catccggcct ctgacggtgt atggactgga agatgcacca
 420
 ggtggccatg gtgaagtccg atttgagcac gtgcgtgtgc ccaaagagaa catggtcctg
 480
 ggccctggcc gaggctttga gatcgcccag ggcagactgg gccccggcag gatccatcac
 540
 tgcattgaggc tgatcggggt ctcagagagg gccctggcac tcatgaaggc ccgcgtgagt
 600

gctttccccc gcacccagca ctgactcaga accaccacct tctgctttgc tgtcggactt
 660
 caattcctac ctgttttctg agtgcagtcc tagcaggtga agcaaggtga tgtccttgcc
 720
 aagaagttgc attcctgtct gctttgcac tgctactttg ctgcagtttg gattcagagc
 780
 agaatggacc ccactctgtc gaggtgacct gaagggaaac gccaggctct gtagcagcag
 840
 agggcaaggt tccaaggtgt aaaggtcatg ctgctagcac attattaaaa atcagtctgg
 900
 gtgcaatggc tcacagctat aatcccagta ctttgggagg tctaggtagg agggttgctt
 960
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 1020
 aaaaaaaaaa a
 1031

<210> 4668

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4668

Xaa	Ala	Met	Gly	Thr	Ser	Leu	Tyr	Ala	Pro	Glu	Val	Cys	Asn	Cys	Ser
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Ala	Pro	Asp	Thr	Gly	Asn	Met	Glu	Leu	Leu	Val	Arg	Tyr	Gly	Thr	Glu
			20					25					30		
Ala	Gln	Lys	Ala	Arg	Trp	Leu	Ile	Pro	Leu	Leu	Glu	Gly	Lys	Ala	Arg
		35					40					45			
Ser	Cys	Phe	Ala	Met	Thr	Glu	Pro	Gln	Val	Ala	Ser	Ser	Asp	Ala	Thr
	50					55					60				
Asn	Ile	Glu	Ala	Ser	Ile	Arg	Glu	Glu	Asp	Ser	Phe	Tyr	Val	Ile	Asn
65					70				75					80	
Gly	His	Lys	Trp	Trp	Ile	Thr	Gly	Ile	Leu	Asp	Pro	Arg	Cys	Gln	Leu
			85					90						95	
Cys	Val	Phe	Met	Gly	Lys	Thr	Asp	Pro	His	Ala	Pro	Arg	His	Arg	Gln
			100					105					110		
Gln	Ser	Val	Leu	Leu	Val	Pro	Met	Asp	Thr	Pro	Gly	Ile	Lys	Ile	Ile
		115					120					125			
Arg	Pro	Leu	Thr	Val	Tyr	Gly	Leu	Glu	Asp	Ala	Pro	Gly	Gly	His	Gly
		130				135					140				
Glu	Val	Arg	Phe	Glu	His	Val	Arg	Val	Pro	Lys	Glu	Asn	Met	Val	Leu
145					150					155				160	
Gly	Pro	Gly	Arg	Gly	Phe	Glu	Ile	Ala	Gln	Gly	Arg	Leu	Gly	Pro	Gly
			165					170						175	
Arg	Ile	His	His	Cys	Met	Arg	Leu	Ile	Gly	Phe	Ser	Glu	Arg	Ala	Leu
		180					185						190		
Ala	Leu	Met	Lys	Ala	Arg	Val	Ser	Ala	Phe	Pro	Arg	Thr	Gln	His	
		195					200					205			

<210> 4669

<211> 683

<212> DNA

<213> Homo sapiens

<400> 4669

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 120
 gacatgaaca taaaaaaaca gattcaggaa cagcaccagg ctgccattat tattcagaag
 180
 cattgtaaag cctttaaaat aaggaagcat tatctccaca ttagagcaac agtagtttct
 240
 attcaaagaa gatacagaaa actaactgca gtgcgtaccc aagcagttat ttgtatacag
 300
 tcttattaca gaggctttta agtacgaaag gatattcaaa atatgcaccg ggctgccaca
 360
 ctaattcagt cattctatcg aatgcacagg gccaaagttg attattaaac aaagaaaact
 420
 gcaattgtgg ttatacagaa ttattatagg ttgtatgtta gagtaaaaac agaaagaaaa
 480
 aacttttttag cagttcagaa atctgtccga actattcagg ctgcttttag aggcatgaaa
 540
 gttagacaaa aattgaaaaa atgtatcaga ggaaaagatg gcagccattg ttaaccaatc
 600
 tgcactctgc tgttacagaa gtaaaactca gtatgaagct gttcaaagtg aaggtgttat
 660
 gattcaagag tggataaaag ctt
 683

<210> 4670

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4670

Xaa	Ser	Phe	Ser	Gly	Leu	Arg	Gly	Ile	Ile	Gln	Glu	Lys	Tyr	Arg	Ala
1				5				10						15	
Asn	Lys	Lys	Lys	Gln	Lys	Val	Phe	Gln	His	Asn	Glu	Leu	Lys	Lys	Glu
			20					25					30		
Thr	Cys	Val	Gln	Ala	Gly	Phe	Gln	Asp	Met	Asn	Ile	Lys	Lys	Gln	Ile
		35				40						45			
Gln	Glu	Gln	His	Gln	Ala	Ala	Ile	Ile	Ile	Gln	Lys	His	Cys	Lys	Ala
		50			55					60					
Phe	Lys	Ile	Arg	Lys	His	Tyr	Leu	His	Ile	Arg	Ala	Thr	Val	Val	Ser
65				70					75					80	
Ile	Gln	Arg	Arg	Tyr	Arg	Lys	Leu	Thr	Ala	Val	Arg	Thr	Gln	Ala	Val
			85					90						95	
Ile	Cys	Ile	Gln	Ser	Tyr	Tyr	Arg	Gly	Phe	Lys	Val	Arg	Lys	Asp	Ile
			100					105					110		
Gln	Asn	Met	His	Arg	Ala	Ala	Thr	Leu	Ile	Gln	Ser	Phe	Tyr	Arg	Met
		115					120						125		
His	Arg	Ala	Lys	Val	Asp	Tyr									
		130				135									

<210> 4671

<211> 657

<212> DNA

<213> Homo sapiens

<400> 4671

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120
ggggctcggc aggggctacc cggtccgct tccgccagc aatggagact gcagccacgt
180
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240
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300
acaaacacca ccaacgcgtc ccatgtgcct gtgcagcccg gtcctcagt tgtgatgatg
360
gtcaacaacc tgggtggcct gtcattcctg gaactgggca tcatagccga cgctaccgtc
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480
gcactggaga tgctggcat ttctctcacc ctctgctgg tggatgagcc tctcctgaaa
540
ctgatagatg ctgaaaccac tgcagcagcc tggcctcgaa gcggatggcg ctggtgctgg
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657

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<210> 4672

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4672

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Glu Ala Gly Val Arg Arg Ile Lys Met Ala Thr Ala Asp Glu Ile Val
      20             25             30
Lys Leu Met Leu Asp His Met Thr Asn Thr Thr Asn Ala Ser His Val
      35             40             45
Pro Val Gln Pro Gly Ser Ser Val Val Met Met Val Asn Asn Leu Gly
      50             55             60
Gly Leu Ser Phe Leu Glu Leu Gly Ile Ile Ala Asp Ala Thr Val Arg
65             70             75             80
Ser Leu Glu Gly Arg Gly Val Lys Ile Ala Arg Ala Leu Val Gly Thr
      85             90             95
Phe Met Ser Ala Leu Glu Met Pro Gly Ile Ser Leu Thr Leu Leu Leu
      100            105            110
Val Asp Glu Pro Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala
      115            120            125
Ala Trp Pro Arg Ser Gly Trp Arg Trp Cys Trp Asn Gly Cys Ala Ala
      130            135            140
Leu Ser Trp Ala Trp Arg Asn Thr
145            150

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<210> 4673
 <211> 1335
 <212> DNA
 <213> Homo sapiens

<400> 4673
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 120
 aatctaagga tgaatgttca ccgtggcagt gacagtgaca gggtattgag gcaggaggcc
 180
 agctgcttag tggatgatac tttagctgta gccaagaaa aagaagcaaa cagcctggct
 240
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 300
 gactatgcct ctacagccagc aaatcttcag ttccctcaca taatgcccct tgctgaagac
 360
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 420
 gaaagatttg gaaacagtag tgtgggcttt ggcagtaatt cccattccca agcaccagag
 480
 aaagtgcgc ttcttgtaga tggcacacgt tttgttgtga atccacagat tttcactgct
 540
 catccggata ccatgctggg aaggatgttt ggaccaggaa gagagtacaa cttcactcgg
 600
 cccaatgaga agggagagta tgagattgct gaaggcatca gtgcaactgt atttcgcaca
 660
 gtgctggatt attacaaaac cggatcatc aattgtcctg atggcatctc tatcccagat
 720
 cttagagata cttgtgatta tctctgcatt aattttgact tcaacactat ccgatgtcaa
 780
 gatctgagtg ctttactcca tgaactgtct aatgacggtg ctcataagca gtttgcacac
 840
 tacctcgaag agctcatctt gcccatcatg gtgggctgtg ccaagaaagg agaacgagag
 900
 tgccacattg ttgtgctgac ggatgaggat tctgtggact gggatgaaga ccaccctcca
 960
 ccaatggggg aggaatatcc ccaaattctt tatagctcca agctctacag attcttcaaa
 1020
 tatattgaga atagggatgt tgcaaaaaca gtgttaaagg aacggggcct aaaaaacatt
 1080
 cgcattggaa ttgaagggtta ccctacctgt aaagaaaaaa ttaagagaag gcctggcggc
 1140
 cgttctgaag tcactataaa ttatgtacaa cggcccttca tccagatgtc atgggaaaag
 1200
 gaagaaggga agagtcgcca tgtggatttc cagtgtgttc gaagcaaata cctcacgaat
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 1320
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 1335

<210> 4674

<211> 402
 <212> PRT
 <213> Homo sapiens

<400> 4674

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Ala Ser Cys Leu Val Asp Asp Thr Leu Ala Val Ala Gln Glu Lys Glu
      20           25           30
Ala Asn Ser Leu Ala Ser Ser Gly Pro His Asn Leu Thr Tyr Pro Leu
      35           40           45
Gly Pro Arg Asn Glu Asp Leu Ser Leu Asp Tyr Ala Ser Gln Pro Ala
      50           55           60
Asn Leu Gln Phe Pro His Ile Met Pro Leu Ala Glu Asp Ile Lys Gly
65           70           75           80
Ser Cys Phe Gln Ser Gly Asn Lys Arg Asn His Glu Pro Phe Ile Ala
      85           90           95
Pro Glu Arg Phe Gly Asn Ser Ser Val Gly Phe Gly Ser Asn Ser His
      100          105          110
Ser Gln Ala Pro Glu Lys Val Thr Leu Leu Val Asp Gly Thr Arg Phe
      115          120          125
Val Val Asn Pro Gln Ile Phe Thr Ala His Pro Asp Thr Met Leu Gly
      130          135          140
Arg Met Phe Gly Pro Gly Arg Glu Tyr Asn Phe Thr Arg Pro Asn Glu
145          150          155          160
Lys Gly Glu Tyr Glu Ile Ala Glu Gly Ile Ser Ala Thr Val Phe Arg
      165          170          175
Thr Val Leu Asp Tyr Tyr Lys Thr Gly Ile Ile Asn Cys Pro Asp Gly
      180          185          190
Ile Ser Ile Pro Asp Leu Arg Asp Thr Cys Asp Tyr Leu Cys Ile Asn
      195          200          205
Phe Asp Phe Asn Thr Ile Arg Cys Gln Asp Leu Ser Ala Leu Leu His
      210          215          220
Glu Leu Ser Asn Asp Gly Ala His Lys Gln Phe Asp His Tyr Leu Glu
225          230          235          240
Glu Leu Ile Leu Pro Ile Met Val Gly Cys Ala Lys Lys Gly Glu Arg
      245          250          255
Glu Cys His Ile Val Val Leu Thr Asp Glu Asp Ser Val Asp Trp Asp
      260          265          270
Glu Asp His Pro Pro Pro Met Gly Glu Glu Tyr Ser Gln Ile Leu Tyr
      275          280          285
Ser Ser Lys Leu Tyr Arg Phe Phe Lys Tyr Ile Glu Asn Arg Asp Val
      290          295          300
Ala Lys Thr Val Leu Lys Glu Arg Gly Leu Lys Asn Ile Arg Ile Gly
305          310          315          320
Ile Glu Gly Tyr Pro Thr Cys Lys Glu Lys Ile Lys Arg Arg Pro Gly
      325          330          335
Gly Arg Ser Glu Val Ile Tyr Asn Tyr Val Gln Arg Pro Phe Ile Gln
      340          345          350
Met Ser Trp Glu Lys Glu Glu Gly Lys Ser Arg His Val Asp Phe Gln
      355          360          365
Cys Val Arg Ser Lys Ser Leu Thr Asn Leu Val Ala Ala Gly Asp Asp
      370          375          380
Val Leu Glu Asp Gln Glu Ile Leu Met His His Pro Pro Gln Val Asp

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385
Glu Leu

390

395

400

<210> 4675

<211> 2868

<212> DNA

<213> Homo sapiens

<400> 4675

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120
cgctcagcga ggaccgttag cagcaacagc ttctgctcag atgacacagg ctgtcctagc
180
agccagtcag tgtctcctgt gaagacaccc tcagatgctg gaaacagccc cattggcttt
240
tgccctggaa gtgatgaagg cttcaccaga aagaaatgca cgattggaat ggttggtgaa
300
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<400> 4676

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<211> 940

<212> DNA

<213> Homo sapiens

<400> 4677

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Phe	Leu	Phe	His	Gln	Thr	Thr	Arg	Gln	Lys	Asn	Leu	Ser	Phe	Leu	Pro
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Pro	Phe	Ser	Phe	Phe	Pro	Ser	Cys	Thr	His	Leu	Glu	Asn	Phe	Thr	Phe
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Leu	Glu	Ser	Pro	Gln	Asn	Asn	Thr	Lys	Val	Ile	Val	Gly	Ala	Thr	Gly
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Phe	Met	Leu	Tyr	Cys	Gly	Ala	Arg	Gly	Lys	Thr	Cys	Leu	Tyr	Ala	Gly
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Asn	Thr	His	Asn	His	Ser	Phe	Arg	Phe	Val	Cys	Leu	Met	Val	Ile	Cys
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His	Lys	Arg	Asp	Leu	Gln	Lys	Gln	Gly	Ala	Leu	Val	Asn	Val	Gln	Tyr
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2220
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2280
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<210> 4684

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4684

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Arg	Pro	Leu	Asn	Ala	Ala	Ala	Ala	Ala	Ala	Thr	Pro	Val	Tyr	Pro	Ala
			20					25					30		
Pro	His	Ala	Arg	Ser	Arg	Val	Arg	Pro	Ala	Pro	Lys	Thr	Ile	Pro	Gln
		35					40					45			
Gln	Thr	His	Gly	Thr	Ala	Arg	Ile	Gly	Thr	His	Asn	Gly	Thr	Phe	His
	50					55				60					
Cys	Asp	Glu	Ala	Leu	Ala	Cys	Ala	Leu	Leu	Arg	Leu	Leu	Pro	Glu	Tyr
65					70					75				80	
Arg	Asp	Ala	Glu	Ile	Val	Arg	Thr	Arg	Asp	Pro	Glu	Lys	Leu	Ala	Ser
				85					90					95	
Cys	Asp	Ile	Val	Val	Asp	Val	Gly	Gly	Glu	Tyr	Asp	Pro	Arg	Arg	His
		100					105						110		
Arg	Tyr	Asp	His	His	Gln	Arg	Ser	Phe	Thr	Glu	Thr	Met	Ser	Ser	Leu
		115					120					125			
Ser	Pro	Gly	Lys	Pro	Trp	Gln	Thr	Lys	Leu	Ser	Ser	Ala	Gly	Leu	Ile
		130				135						140			
Tyr	Leu	His	Phe	Gly	His	Lys	Leu	Leu	Ala	Gln	Leu	Leu	Gly	Thr	Ser
145					150					155				160	
Glu	Glu	Asp	Ser	Met	Val	Gly	Thr	Leu	Tyr	Asp	Lys	Met	Tyr	Glu	Asn
				165					170					175	
Phe	Val	Glu	Glu	Val	Asp	Ala	Val	Asp	Asn	Gly	Ile	Ser	Gln	Trp	Ala
			180					185					190		
Glu	Gly	Glu	Pro	Arg	Tyr	Ala	Leu	Thr	Thr	Thr	Leu	Ser	Ala	Arg	Val
		195					200					205			
Ala	Arg	Leu	Asn	Pro	Thr	Trp	Asn	His	Pro	Asp	Gln	Asp	Thr	Glu	Ala
		210				215					220				
Gly	Phe	Lys	Arg	Ala	Met	Asp	Leu	Val	Gln	Glu	Glu	Phe	Leu	Gln	Arg
225				230					235					240	
Leu	Asp	Phe	Tyr	Gln	His	Ser	Trp	Leu	Pro	Ala	Arg	Ala	Leu	Val	Glu
			245						250					255	
Glu	Ala	Leu	Ala	Gln	Arg	Phe	Gln	Val	Asp	Pro	Ser	Gly	Glu	Ile	Val
		260					265						270		
Glu	Leu	Ala	Lys	Gly	Ala	Cys	Pro	Trp	Lys	Glu	His	Leu	Tyr	His	Leu
		275				280					285				
Glu	Ser	Gly	Leu	Ser	Pro	Pro	Val	Ala	Ile	Phe	Phe	Val	Ile	Tyr	Thr
		290				295					300				
Asp	Gln	Ala	Gly	Gln	Trp	Arg	Ile	Gln	Cys	Val	Pro	Lys	Glu	Pro	His

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<210> 4685
<211> 618
<212> DNA
<213> Homo sapiens
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<400> 4685
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120
gtccctgtgt ctctcatcct gtgctggtgg caggggtgag ccaccaactc ggaaggccca
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240
gccgcagctg atgcccaggg acgcgctgga caccggtctg cagccgcttc caacctctcc
300
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360
gtccagaaga actatgaaca cttatttaag gtgaatgata aatccgtggg tggctccttc
420
tacctgcagt caaagggtgg cgcgcgcaaag gagcgccctg atgaggaact caaaatccag
480
gcccaggagg acagagaaaa agggcagatg ccccatcagt gactgctcgg ctccccccgc
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ccaccccgcc gcctctaatt tatagcttgg taataaattt cttttctgca aaaaaaagag
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gctggagtgt gctcgcga
618

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<210> 4686
<211> 106
<212> PRT
<213> Homo sapiens
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<400> 4686
Gly Leu Ser Asp His Pro His Val His Thr Ala Ser Arg Ala Ala Ala
 1          5          10          15
Asp Ala Arg Gly Arg Ala Gly His Arg Ser Ala Ala Ala Ser Asn Leu
          20          25          30
Ser Gly Leu Ser Leu Gln Glu Ala Gln Gln Ile Leu Asn Val Ser Lys
          35          40          45
Leu Ser Pro Glu Glu Val Gln Lys Asn Tyr Glu His Leu Phe Lys Val

```

```

      50              55              60
Asn Asp Lys Ser Val Gly Gly Ser Phe Tyr Leu Gln Ser Lys Val Val
65              70              75              80
Arg Ala Lys Glu Arg Leu Asp Glu Glu Leu Lys Ile Gln Ala Gln Glu
      85              90              95
Asp Arg Glu Lys Gly Gln Met Pro His Thr
      100              105

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<210> 4687
 <211> 309
 <212> DNA
 <213> Homo sapiens

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<400> 4687
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120
cggcgctctc gcaccccttg tgggtggcat tgatgagcgc cctaattctg ggtctgcttt
180
tcgtggcggt ctacagcttg tcccatggcg aggtctccta tgaccactc tatgctggct
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tcgtgtcttt cgccttcacc tcgggtgggg acctcatcat cgctcttcag gaagacagct
300
atgggggggg
309

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<210> 4688
 <211> 90
 <212> PRT
 <213> Homo sapiens

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<400> 4688
Met Asp Ile Pro Pro Leu Ala Gly Lys Ile Ala Ala Leu Ser Leu Ser
1              5              10              15
Ala Leu Pro Val Ser Tyr Ala Leu Asn His Val Ser Ala Leu Ser His
      20              25              30
Pro Leu Trp Val Ala Leu Met Ser Ala Leu Ile Leu Gly Leu Leu Phe
      35              40              45
Val Ala Val Tyr Ser Leu Ser His Gly Glu Val Ser Tyr Asp Pro Leu
      50              55              60
Tyr Ala Gly Phe Ala Val Phe Ala Phe Thr Ser Gly Gly Asp Leu Ile
65              70              75              80
Ile Ala Leu Gln Glu Asp Ser Tyr Gly Gly
      85              90

```

<210> 4689
 <211> 898
 <212> DNA
 <213> Homo sapiens

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<400> 4689
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 120
 ctgctggaca gctcagccag cgtctctcac tacgagttct cccgggttcg ggagtttgtg
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 gggcagctgg tggctccact gcccctggca ccgngggccc tgcgtgccag tctggtgcac
 240
 gtgggcagtc ggccatacac cgagttcccc ttccggccagc acagctcggg tgaggctgac
 300
 caggatgcgg tgcgtgcttc tgcccagcgc atgggtgaca cccacactgg cctggcgctg
 360
 gtctatgcc aaggaacagct gtttgctgaa gcacaggtg cccggccagg ggtgccc aaa
 420
 gtgctggtgt ggggtgacaga tggcggctcc agcgaccctg tgggcccccc catgcaggag
 480
 ctcaaggacc tgggcgtcac cgtgttcatt gtcagcaccc gccgaggcaa cttcctggag
 540
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 660
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 720
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 780
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<210> 4690

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4690

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Ala	Leu	Ser	Leu	Arg	Trp	Arg	Trp	Arg	Thr	Pro	Asp	Cys	Pro	Pro	Ala
			20					25					30		
Ser	Ala	Pro	Glu	Asp	Leu	Met	Phe	Leu	Leu	Asp	Ser	Ser	Ala	Ser	Val
		35					40				45				
Ser	His	Tyr	Glu	Phe	Ser	Arg	Val	Arg	Glu	Phe	Val	Gly	Gln	Leu	Val
	50					55					60				
Ala	Pro	Leu	Pro	Leu	Ala	Pro	Xaa	Ala	Leu	Arg	Ala	Ser	Leu	Val	His
65					70					75				80	
Val	Gly	Ser	Arg	Pro	Tyr	Thr	Glu	Phe	Pro	Phe	Gly	Gln	His	Ser	Ser
			85					90						95	
Gly	Glu	Ala	Ala	Gln	Asp	Ala	Val	Arg	Ala	Ser	Ala	Gln	Arg	Met	Gly
			100					105					110		
Asp	Thr	His	Thr	Gly	Leu	Ala	Leu	Val	Tyr	Ala	Lys	Glu	Gln	Leu	Phe
		115					120					125			
Ala	Glu	Ala	Ser	Gly	Ala	Arg	Pro	Gly	Val	Pro	Lys	Val	Leu	Val	Trp
	130					135					140				
Val	Thr	Asp	Gly	Gly	Ser	Ser	Asp	Pro	Val	Gly	Pro	Pro	Met	Gln	Glu

145					150					155				160	
Leu	Lys	Asp	Leu	Gly	Val	Thr	Val	Phe	Ile	Val	Ser	Thr	Gly	Arg	Gly
				165					170					175	
Asn	Phe	Leu	Glu	Leu	Ser	Ala	Ala	Ala	Ser	Ala	Pro	Ala	Glu	Lys	His
			180					185					190		
Leu	His	Phe	Val	Asp	Val	Asp	Asp	Leu	His	Ile	Ile	Val	Gln	Glu	Leu
		195					200					205			
Arg	Gly	Ser	Ile	Leu	Asp	Ala	Met	Arg	Pro	Gln	Gln	Leu	His	Ala	Thr
	210					215				220					
Glu	Ile	Thr	Ser	Ser	Gly	Phe	Arg	Leu	Ala	Trp	Pro	Pro	Leu	Leu	Thr
225					230				235					240	
Ala	Asp	Ser	Gly	Tyr	Tyr	Val	Leu	Glu	Leu	Val	Pro	Ser	Ala	Gln	Pro
			245					250					255		
Gly	Ala	Ala	Arg	Arg	Gln	Gln	Leu	Pro	Gly	Asn	Ala	Thr	Asp	Trp	Ile
		260					265					270			
Trp	Ala	Gly	Leu	Asp	Pro	Asp	Thr	Asp	Tyr	Asp	Val	Ala	Leu	Val	Pro
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Glu	Ser	Asn	Val	Arg	Leu	Arg	Pro	Gln	Ile						
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<210> 4691

<211> 2375

<212> DNA

<213> Homo sapiens

<400> 4691

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720
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840

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2100
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2160
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2280
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<210> 4692

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4692

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Phe Leu Phe His Ala Ile Asn Lys Pro Asn Ala Pro Ile Trp Leu Ile
      35           40           45
Leu Asn Glu Ala Gly Leu Tyr Trp Arg Ala Val Gly Asn Ser Thr Phe
      50           55           60
Ala Ile Ala Cys Leu Gln Arg Ala Leu Asn Leu Ala Pro Leu Gln Tyr
      65           70           75           80
Gln Asp Val Pro Leu Val Asn Leu Ala Asn Leu Leu Ile His Tyr Gly
      85           90           95
Leu His Leu Asp Ala Thr Lys Leu Leu Leu Gln Ala Leu Ala Ile Asn
      100          105          110
Ser Ser Glu Pro Leu Thr Phe Leu Ser Leu Gly Asn Ala Tyr Leu Ala
      115          120          125
Leu Lys Asn Ile Ser Gly Ala Leu Glu Ala Phe Arg Gln Ala Leu Lys
      130          135          140
Leu Thr Thr Lys Cys Pro Glu Cys Glu Asn Ser Leu Lys Leu Ile Arg
      145          150          155          160
Cys Met Gln Phe Tyr Pro Phe Leu Tyr Asn Ile Thr Ser Ser Val Cys
      165          170          175
Ser Gly Asn Cys His Glu Lys Thr Leu Asp Asn Ser His Asp Lys Gln
      180          185          190
Lys Tyr Phe Asp Asn Ser Gln Ser Leu Asp Ala Ala Glu Glu Glu Pro
      195          200          205
Ser Glu Arg Gly Thr Glu Glu Asp Pro Val Phe Ser Val Glu Asn Ser
      210          215          220
Gly Arg Asp Ser Asp Ala Leu Arg Leu Glu Ser Thr Val Val Glu Glu
      225          230          235          240
Ser Asn Gly Ser Asp Glu Met Glu Asn Ser Asp Glu Thr Lys Met Ser
      245          250          255
Glu Glu Ile Leu Ala Leu Val Asp Glu Phe Gln Gln Ala Trp Pro Leu
      260          265          270
Glu Gly Phe Gly Gly Ala Leu Glu Met Lys Gly Arg Arg Leu Asp Leu
      275          280          285
Gln Gly Ile Arg Val Leu Lys Lys Gly Pro Gln Asp Gly Val Ala Arg
      290          295          300
Ser Ser Cys Tyr Gly Asp Cys Arg Ser Glu Asp Asp Glu Ala Thr Glu
      305          310          315          320
Trp Ile Thr Phe Gln Val Lys Arg Val Lys Lys Pro Lys Gly Asp His
      325          330          335
Lys Lys Thr Pro Gly Lys Lys Val Glu Thr Gly Gln Ile Glu Asn Gly
      340          345          350
His Arg Tyr Gln Ala Asn Leu Glu Ile Thr Gly Pro Lys Val Ala Ser
      355          360          365
Pro Gly Pro Gln Gly Leu Leu Asp Trp Lys Thr Arg Lys Val Pro
      370          375          380

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<210> 4693
 <211> 794
 <212> DNA
 <213> Homo sapiens

<400> 4693
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 780
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 794

<210> 4694
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 4694
 Met Ala Asp Asp Lys Asp Ser Leu Pro Lys Leu Lys Asp Leu Ala Phe
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 20 25 30
 Asn Ser Gly Val Gly Gln Asp Gly Ser Leu Leu Ser Ser Pro Phe Leu
 35 40 45
 Lys Gly Phe Leu Ala Gly Tyr Val Val Ala Lys Leu Arg Ala Ser Ala
 50 55 60
 Val Leu Gly Phe Ala Val Gly Thr Cys Thr Gly Ile Tyr Ala Ala Gln
 65 70 75 80
 Ala Tyr Ala Val Pro Asn Val Glu Lys Thr Leu Arg Asp Tyr Leu Gln
 85 90 95
 Leu Leu Arg Lys Gly Pro Asp

100

<210> 4695

<211> 2209

<212> DNA

<213> Homo sapiens

<400> 4695

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120
cgctgtgct tcctccttaa ctatctctag ttaaagctat ctccaccacc aggccacaag
180
ctcccagaga acagagatcg tgtttttcat tattctgtcc atttccatcc cccactcccc
240
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<210> 4696

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4696

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			20					25					30		
Leu	Glu	Met	Pro	Gly	Ile	Ser	Leu	Thr	Leu	Leu	Leu	Val	Asp	Glu	Pro
		35					40					45			
Leu	Leu	Lys	Leu	Ile	Asp	Ala	Glu	Thr	Thr	Ala	Ala	Ala	Trp	Pro	Asn
		50			55					60					
Val	Ala	Ala	Val	Ser	Ile	Thr	Gly	Arg	Lys	Arg	Ser	Arg	Val	Ala	Pro
65					70				75					80	
Ala	Glu	Pro	Gln	Glu	Ala	Pro	Asp	Ser	Thr	Ala	Ala	Xaa	Glu	Ala	Gln
			85					90					95		
Pro	Arg	Ser	Xaa	Met	Ala	Leu	Val	Leu	Glu	Arg	Val	Cys	Ser	Thr	Leu
			100					105				110			
Leu	Gly	Leu	Glu	Glu	His	Leu	Asn	Ala	Leu	Asp	Arg	Ala	Ala	Gly	Asp
		115					120					125			
Gly	Asp	Cys	Gly	Thr	Thr	His	Ser	Arg	Ala	Ala	Arg	Ala	Ile	Gln	Glu
		130				135					140				
Trp	Leu	Lys	Glu	Gly	Pro	Pro	Pro	Ala	Ser	Pro	Ala	Gln	Leu	Leu	Ser

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Lys	Leu	Ser	Val	Leu	Leu	Leu	Glu	Lys	Met	Gly	Gly	Ser	Ser	Gly	Ala
			165						170					175	
Leu	Tyr	Gly	Leu	Phe	Leu	Thr	Ala	Ala	Ala	Gln	Pro	Leu	Lys	Ala	Lys
			180						185					190	
Thr	Ser	Leu	Pro	Ala	Trp	Ser	Ala	Ala	Met	Asp	Ala	Gly	Leu	Glu	Ala
		195					200					205			
Met	Gln	Lys	Tyr	Gly	Lys	Ala	Ala	Pro	Gly	Asp	Arg	Thr	Met	Leu	Asp
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Ser	Leu	Trp	Ala	Ala	Glu	Gln	Glu	Leu	Gln	Ala	Trp	Lys	Ser	Pro	Gly
225					230					235				240	
Ala	Asp	Leu	Leu	Gln	Val	Leu	Thr	Lys	Ala	Val	Lys	Ser	Ala	Glu	Ala
				245					250					255	
Ala	Ala	Glu	Ala	Thr	Lys	Asn	Met	Glu	Ala	Gly	Ala	Gly	Arg	Ala	Ser
			260					265					270		
Tyr	Ile	Ser	Ser	Ala	Arg	Leu	Glu	Gln	Pro	Asp	Pro	Gly	Ala	Val	Ala
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<210> 4697

<211> 1047

<212> DNA

<213> Homo sapiens

<400> 4697

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 240
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 420
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 660
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 720
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 780
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 840

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<210> 4698

<211> 182

<212> PRT

<213> Homo sapiens

<400> 4698

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Thr	Asp	Gly	Thr	Val	Phe	Arg	Ile	His	Thr	Lys	Ala	Glu	Gly	Phe	Met
		20					25						30		
Asp	Ala	Asp	Ile	Pro	Leu	Glu	Leu	Val	Phe	His	Leu	Pro	Val	Asn	Tyr
	35					40					45				
Pro	Ser	Cys	Leu	Pro	Gly	Ile	Ser	Ile	Asn	Ser	Glu	Gln	Leu	Thr	Arg
	50				55					60					
Ala	Gln	Cys	Val	Thr	Val	Lys	Glu	Lys	Leu	Leu	Glu	Gln	Ala	Glu	Ser
65					70				75						80
Leu	Leu	Ser	Glu	Pro	Met	Val	His	Glu	Leu	Val	Leu	Trp	Ile	Gln	Gln
			85					90						95	
Asn	Leu	Arg	His	Ile	Leu	Ser	Gln	Pro	Glu	Thr	Gly	Ser	Gly	Ser	Glu
		100					105					110			
Lys	Cys	Thr	Phe	Ser	Thr	Ser	Thr	Thr	Met	Asp	Asp	Gly	Leu	Trp	Ile
	115					120						125			
Thr	Leu	Leu	His	Leu	Asp	His	Met	Arg	Ala	Lys	Thr	Lys	Tyr	Val	Lys
	130				135						140				
Ile	Val	Glu	Lys	Trp	Ala	Ser	Asp	Leu	Arg	Leu	Thr	Gly	Arg	Leu	Met
145					150				155						160
Phe	Met	Gly	Lys	Ile	Ile	Leu	Ile	Leu	Leu	Gln	Gly	Asp	Arg	Asn	Asn
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Leu	Lys	Val	Pro	Lys	Ser										
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<210> 4699

<211> 1441

<212> DNA

<213> Homo sapiens

<400> 4699

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attacaatta aaataactat attcttctat attttttctg ttaaaatcat ctcataaatt
 300
 tacaatgcta ttattagttt ccaagactaa tataaattca ctccattttt ctacaacgaa
 360
 aatgattaat ttagaagcac acgacgtcat gatgaaaaac acaagcattt tagtagcaag
 420
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 480
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<210> 4700

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4700

Met	Asp	Thr	Ile	Phe	Gly	Asn	Val	Thr	Glu	Tyr	Gln	Arg	Leu	Gln	Leu
1				5				10					15		
Ser	Thr	Arg	Gly	Gln	Ser	Lys	Thr	Gly	Trp	Lys	Leu	Pro	Val	Thr	Leu
			20					25				30			
Ile	Cys	Cys	Pro	Arg	His	Pro	Leu	Met	Arg	Leu	Lys	Leu	Gly	Pro	Ser


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      1             5             10             15
Asp Pro Pro Thr Ser Ala Ser Glu Asn Ala Gly Ile Thr Gly Leu Ser
      20             25             30
His Xaa Pro Pro Gly His Phe Phe Leu Glu Thr Arg Ser Tyr Ser Leu
      35             40             45
Ala Lys Asn Gly Val Gln Trp Cys Asn Val Gly Ser Leu Gln Pro Lys
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Pro Pro Gly Leu Lys
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<210> 4703

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4703

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<210> 4704

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4704

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      20             25             30
His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
      35             40             45
Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
      50             55             60
Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
      65             70             75             80
Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
      85             90             95
Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

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105

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<210> 4705

<211> 569

<212> DNA

<213> Homo sapiens

<400> 4705

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<210> 4706

<211> 154

<212> PRT

<213> Homo sapiens

<400> 4706

Arg Thr Arg Pro Lys Glu Gly Trp Lys Gly Pro Arg Ser Asp Asn Ser
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 20 25 30
 Thr Glu Leu Arg Glu Tyr Phe Lys Lys Phe Gly Val Val Thr Glu Val
 35 40 45
 Val Met Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Lys Gly Arg
 50 55 60
 Ser Ser Leu Thr Ser Ala Phe Ser Leu Leu Leu Pro Gln Met Ala Asn
 65 70 75 80
 Tyr Leu Thr Arg Gln Ala His Thr Gly Gly Cys Ser Lys Gln Pro
 85 90 95
 Gln Glu Gly Thr Ile Trp Arg Gln Met Thr Lys Thr Trp Ala Pro His
 100 105 110
 Val His Pro Ile Gln Pro Val Cys Ala Ser Arg Gly Gln Thr Ser His
 115 120 125
 Ile Val Phe Trp Leu Val Leu Lys Phe Leu Arg Leu Val Met Ser
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145

150

<210> 4707

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4707

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<210> 4708

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4708

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Ser	Ser	Ser	Leu	Ser	Pro	Pro	Arg	Gly	Asp	Arg	Thr	Leu	Leu	Val	Arg
			20					25				30			
His	Leu	Pro	Ala	Glu	Leu	Thr	Ala	Glu	Glu	Lys	Glu	Asp	Leu	Leu	Lys
			35				40					45			
Tyr	Phe	Gly	Ala	Gln	Ser	Val	Arg	Val	Leu	Ser	Asp	Lys	Gly	Arg	Leu
			50				55				60				
Lys	His	Thr	Ala	Phe	Ala	Thr	Phe	Pro	Asn	Glu	Lys	Ala	Ala	Ile	Lys
			65			70			75					80	
Ala	Leu	Thr	Arg	Leu	His	Gln	Leu	Lys	Leu	Gly	His	Thr	Leu	Val	
			85				90					95			
Val	Glu	Phe	Ala	Lys	Glu	Gln	Asp	Arg	Val	His	Ser	Pro	Cys	Pro	Thr

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115		120		125	

<210> 4709
 <211> 1351
 <212> DNA
 <213> Homo sapiens

<400> 4709
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<210> 4710
<211> 304
<212> PRT
<213> Homo sapiens

<400> 4710
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35 40 45
Gln Ser Arg Gly Phe Gly Phe Val Lys Phe Lys Asp Pro Asn Cys Val
50 55 60
Gly Thr Val Leu Ala Ser Arg Pro His Thr Leu Asp Gly Arg Asn Ile
65 70 75 80
Asp Pro Lys Pro Cys Thr Pro Arg Gly Met Gln Pro Glu Arg Thr Arg
85 90 95
Pro Lys Glu Gly Trp Gln Lys Gly Pro Arg Ser Asp Asn Ser Lys Ser
100 105 110
Asn Lys Ile Phe Val Gly Gly Ile Pro His Asn Cys Gly Glu Thr Glu
115 120 125
Leu Arg Glu Tyr Phe Lys Lys Phe Gly Val Val Thr Glu Val Val Met
130 135 140
Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Phe Gly Phe Ile Thr
145 150 155 160
Phe Glu Asp Glu Gln Ser Val Asp Gln Ala Val Asn Met His Phe His
165 170 175
Asp Ile Met Gly Lys Lys Val Glu Val Lys Arg Ala Glu Pro Arg Asp
180 185 190
Ser Lys Ser Gln Ala Pro Gly Gln Pro Gly Ala Ser Gln Trp Gly Ser
195 200 205
Arg Val Val Pro Asn Ala Ala Asn Gly Trp Ala Gly Gln Pro Pro Pro
210 215 220
Thr Trp Gln Gln Gly Tyr Gly Pro Gln Gly Met Trp Val Pro Ala Gly
225 230 235 240
Gln Ala Ile Gly Gly Tyr Gly Pro Pro Pro Ala Gly Arg Gly Ala Pro
245 250 255
Pro Pro Pro Pro Pro Phe Thr Ser Tyr Ile Val Ser Thr Pro Pro Gly
260 265 270
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<210> 4711
<211> 2061
<212> DNA
<213> Homo sapiens

<400> 4711

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<211> 187

<212> PRT

<213> Homo sapiens

<400> 4712

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<211> 1324

<212> DNA

<213> Homo sapiens

<400> 4713

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<211> 145

<212> PRT

<213> Homo sapiens

<400> 4714

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 85 90 95
 Tyr Glu His Leu Phe Lys Val Asn Asp Lys Ser Val Gly Gly Ser Phe
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<212> DNA

<213> Homo sapiens

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<210> 4716

<211> 239

<212> PRT

<213> Homo sapiens

<400> 4716

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<211> 2753
<212> DNA
<213> Homo sapiens
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<211> 259

<212> PRT

<213> Homo sapiens

<400> 4718

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			20					25					30		
Asn	Leu	Asp	Ala	Phe	Asn	Glu	Arg	Asp	Pro	Tyr	Lys	Ala	Asp	Asp	Ser
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Thr	Phe	Pro	Leu	Glu	Arg	Asp	Glu	Val	Met	Pro	Pro	Pro	Leu	Gln	His
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Lys	Val	Arg	Glu	Lys	Asp	Ile	Glu	Met	Phe	Leu	Glu	Ser	Ser	Arg	Ser
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Lys His Phe

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<210> 4719

<211> 589

<212> DNA

<213> Homo sapiens

<400> 4719

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<211> 196

<212> PRT

<213> Homo sapiens

<400> 4720

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Val	Thr	Gly	Lys	Gly	Gly	Leu	Thr	Gln	Asp	Leu	Lys	Ala	Ala	Ala	Arg
				85					90					95	
Cys	Phe	Leu	Met	Ala	Cys	Glu	Lys	Pro	Gly	Lys	Lys	Ser	Ile	Ala	Ala
			100					105					110		
Cys	His	Asn	Val	Gly	Leu	Leu	Ala	His	Asp	Gly	Gln	Val	Asn	Glu	Asp
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Ser Arg Met Tyr		190
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<210> 4721

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4721

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 ccaaattagt atgctgtctt gaattgtcct gcctgcatga ccacactttg ccttgattgc
 720
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 780
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 840
 aagaagatga ggtctaaccg ggaagatgct gctgagaagg cagagacaga tgtggaagaa
 900
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 1080
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 1140

ttcattcatc tcttacatct ctcacctct cctttttttt ttctttgatt ttccccctta
 1200
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 1260
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 agctt
 1385

<210> 4722

<211> 285

<212> PRT

<213> Homo sapiens

<400> 4722

Met	Asn	Arg	Leu	Pro	Asp	Asp	Tyr	Asp	Pro	Tyr	Ala	Val	Glu	Glu	Pro	1	5	10	15
Ser	Asp	Glu	Glu	Pro	Ala	Leu	Ser	Ser	Ser	Glu	Asp	Glu	Val	Asp	Val	20	25	30	
Leu	Leu	His	Gly	Thr	Pro	Asp	Gln	Lys	Arg	Lys	Leu	Ile	Arg	Glu	Cys	35	40	45	
Leu	Thr	Gly	Glu	Ser	Glu	Ser	Ser	Ser	Glu	Asp	Glu	Phe	Glu	Lys	Glu	50	55	60	
Met	Glu	Ala	Glu	Leu	Asn	Ser	Thr	Met	Lys	Thr	Met	Glu	Asp	Lys	Leu	65	70	75	80
Ser	Ser	Leu	Gly	Thr	Gly	Ser	Ser	Ser	Gly	Asn	Gly	Lys	Val	Ala	Thr	85	90	95	
Ala	Pro	Thr	Arg	Tyr	Tyr	Asp	Asp	Ile	Tyr	Phe	Asp	Ser	Asp	Ser	Glu	100	105	110	
Asp	Glu	Asp	Arg	Ala	Val	Gln	Val	Thr	Lys	Lys	Lys	Lys	Lys	Lys	Gln	115	120	125	
His	Lys	Ile	Pro	Thr	Asn	Asp	Glu	Leu	Leu	Tyr	Asp	Pro	Glu	Lys	Asp	130	135	140	
Asn	Arg	Asp	Gln	Ala	Trp	Val	Asp	Ala	Gln	Arg	Arg	Gly	Tyr	His	Gly	145	150	155	160
Leu	Gly	Pro	Gln	Arg	Ser	Arg	Gln	Gln	Gln	Pro	Val	Pro	Asn	Ser	Asp	165	170	175	
Ala	Val	Leu	Asn	Cys	Pro	Ala	Cys	Met	Thr	Thr	Leu	Cys	Leu	Asp	Cys	180	185	190	
Gln	Arg	His	Glu	Ser	Tyr	Lys	Thr	Gln	Tyr	Arg	Ala	Met	Phe	Val	Met	195	200	205	
Asn	Cys	Ser	Ile	Asn	Lys	Glu	Glu	Val	Leu	Arg	Tyr	Lys	Ala	Ser	Glu	210	215	220	
Asn	Arg	Lys	Lys	Arg	Arg	Val	His	Lys	Lys	Met	Arg	Ser	Asn	Arg	Glu	225	230	235	240
Asp	Ala	Ala	Glu	Lys	Ala	Glu	Thr	Asp	Val	Glu	Glu	Ile	Tyr	His	Pro	245	250	255	
Val	Met	Cys	Thr	Glu	Cys	Ser	Thr	Glu	Val	Ala	Val	Tyr	Asp	Lys	Asp	260	265	270	
Glu	Val	Phe	His	Phe	Phe	Asn	Val	Leu	Ala	Ser	His	Ser	275	280	285				

<210> 4723
<211> 1213
<212> DNA
<213> Homo sapiens

<400> 4723
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180
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240
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300
gaaccacccc caggccctcc ctctcccttc ccagacagct ctcttttcgg gctcaaccca
360
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420
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480
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540
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600
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660
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720
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960
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1020
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1080
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1213

<210> 4724
<211> 54
<212> PRT
<213> Homo sapiens

<400> 4724

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Met Gly Pro Arg Arg His Arg Ala Ser Ser Ile Leu Pro Gln Thr Leu
 1           5           10           15
Val Gly Val Pro Val Gly Trp Gly Gly Glu Trp Gly Glu Pro Thr Pro
      20           25           30
Gly Pro Pro Ser Pro Phe Pro Arg Gln Ser Pro Phe Gly Leu Asn Pro
      35           40           45
Phe Leu Pro Ala Gly Asp
      50

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<210> 4725

<211> 366

<212> DNA

<213> Homo sapiens

<400> 4725

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120
tgcgcattgt cacgtgtgta tatgcatatg tgcacaggtg cctgtgcctg tgtgaacaca
180
tgttctcagc tgtgtacctg cntctcttgc ccatgcntgt acgtgcacac gtgcctctgt
240
atgcatgcat gtatagctgt gtgccatac cctcacgtga gaatacatat gcgcttgtgc
300
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360
acgcgt
366

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<210> 4726

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4726

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Xaa Phe Leu Glu Gly Glu Leu Gly Arg Ser Arg Arg Thr Pro Ala Gly
 1           5           10           15
Gly Arg Gly Ala Met Leu Ala Ile Asp Thr Ala Ser Asp Ile Leu Ala
      20           25           30
His Val His Val Tyr Ser Arg Leu Cys Ala Cys Ala Arg Val Tyr Met
      35           40           45
His Met Cys Thr Gly Ala Cys Ala Cys Val Asn Thr Cys Ser His Val
      50           55           60
Cys Thr Cys Xaa Ser Cys Pro Cys Xaa Tyr Val His Thr Cys Leu Cys
      65           70           75           80
Met His Ala Cys Ile Ala Val Cys Pro Tyr Pro His Val Arg Ile His
      85           90           95
Met Arg Leu Cys Leu His Leu Cys Met His Ala Ser Val Leu Leu Arg
      100          105          110
Ala Trp Val Cys Ile Cys Ala Cys Thr Arg
      115          120

```

<210> 4727
 <211> 2031
 <212> DNA
 <213> Homo sapiens

<400> 4727
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 180
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 240
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 300
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 360
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 420
 ccacgcttct tgatttcctc caaagccaag tggtcgatgc ccacagacat ggtgctgatg
 480
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 540
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 660
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 720
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 780
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 840
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 900
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 960
 aagaatggtg gctggacctc gtggaagccc ctctggctgt gtggctatgg actcacgcag
 1020
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 1080
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 1200
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 1260
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 1320
 ctgtaccagg ccttgccag tggttaagatt gcagctgctg gactggatgt gacgagccca
 1380
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 1440

attggcagtg ccacccacag aacccgcaac accatgtcct tgttggcagc taacaacttg
 1500
 ctggctggcc tgagagggga gccgatgcct agtgaactca agctgtagcc aaacagtaga
 1560
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 1620
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 1680
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 1740
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 1860
 tatctagatg acctccttct ctgtagcccc tccctaaaaa actcccaaac tcacactgcc
 1920
 acccttctga atttccttac taataaaggc tatagggtct cccctttaa gaacagcttt
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 2031

<210> 4728

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4728

Met	Arg	Pro	Val	Arg	Leu	Met	Lys	Val	Phe	Val	Thr	Arg	Arg	Ile	Pro
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Ala	Glu	Gly	Arg	Val	Ala	Leu	Ala	Arg	Ala	Ala	Asp	Cys	Glu	Val	Glu
			20				25						30		
Gln	Trp	Asp	Ser	Asp	Glu	Pro	Ile	Pro	Ala	Lys	Glu	Leu	Glu	Arg	Gly
		35				40						45			
Val	Ala	Gly	Ala	His	Gly	Leu	Leu	Cys	Leu	Leu	Ser	Asp	His	Val	Asp
	50					55					60				
Lys	Arg	Ile	Leu	Asp	Ala	Ala	Gly	Ala	Asn	Leu	Lys	Val	Ile	Ser	Thr
65				70					75					80	
Met	Ser	Val	Gly	Ile	Asp	His	Leu	Ala	Leu	Asp	Glu	Ile	Lys	Lys	Arg
			85					90						95	
Gly	Ile	Arg	Val	Gly	Tyr	Thr	Pro	Asp	Val	Leu	Thr	Asp	Thr	Thr	Ala
			100					105					110		
Glu	Leu	Ala	Val	Ser	Leu	Leu	Leu	Thr	Thr	Cys	Arg	Arg	Leu	Pro	Glu
		115					120					125			
Ala	Ile	Glu	Glu	Val	Lys	Asn	Gly	Gly	Trp	Thr	Ser	Trp	Lys	Pro	Leu
	130					135					140				
Trp	Leu	Cys	Gly	Tyr	Gly	Leu	Thr	Gln	Ser	Thr	Val	Gly	Ile	Ile	Gly
145				150					155					160	
Leu	Gly	Arg	Ile	Gly	Gln	Ala	Ile	Ala	Arg	Arg	Leu	Lys	Pro	Phe	Gly
			165					170						175	
Val	Gln	Arg	Phe	Leu	Tyr	Thr	Gly	Arg	Gln	Pro	Arg	Pro	Glu	Glu	Ala
		180					185						190		
Ala	Glu	Phe	Gln	Ala	Glu	Phe	Val	Ser	Thr	Pro	Glu	Leu	Ala	Ala	Gln
	195						200					205			
Ser	Asp	Phe	Ile	Val	Val	Ala	Cys	Ser	Leu	Thr	Pro	Ala	Thr	Glu	Gly

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      210              215              220
Leu Cys Asn Lys Asp Phe Phe Gln Lys Met Lys Glu Thr Ala Val Phe
225              230              235              240
Ile Asn Ile Ser Arg Gly Asp Val Val Asn Gln Asp Asp Leu Tyr Gln
      245              250              255
Ala Leu Ala Ser Gly Lys Ile Ala Ala Ala Gly Leu Asp Val Thr Ser
      260              265              270
Pro Glu Pro Leu Pro Thr Asn His Pro Leu Leu Thr Leu Lys Asn Cys
      275              280              285
Val Ile Leu Pro His Ile Gly Ser Ala Thr His Arg Thr Arg Asn Thr
      290              295              300
Met Ser Leu Leu Ala Ala Asn Asn Leu Leu Ala Gly Leu Arg Gly Glu
305              310              315              320
Pro Met Pro Ser Glu Leu Lys Leu
      325

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<210> 4729
<211> 753
<212> DNA
<213> Homo sapiens

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<400> 4729
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120
cctgttggtg gatttgggga aattttttgt ttgtttttta tgatttgtat ttgactgaga
180
gaaacccact gaagacgtct gcgtgagaat agagaccacc gaggccgact cgcgggccgc
240
tgcacccacc gccaaggaca aaaggagccc agcgtacta gctgcacccg attcctccca
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420
aaaagccatt atgcagatgt agatcctgaa aaccagaact ttttacttga atcgaatttg
480
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540
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600
aatactggaa ttgctctttt tataattctc ttgacatttg tgtcaatatt ttccctgtat
660
tctgttcac tccttttgaa gactgccaat gaaggagggt ctttattata tgaacaattg
720
ggatataagg catctggatt agttggaaag ctt
753

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<210> 4730
<211> 148
<212> PRT
<213> Homo sapiens

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<400> 4730

Met Lys Lys Ala Glu Met Gly Arg Phe Ser Ile Ser Pro Asp Glu Asp
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 Ser Ser Ser Tyr Ser Ser Asn Ser Asp Phe Asn Tyr Ser Tyr Pro Thr
 20 25 30
 Lys Gln Ala Ala Leu Lys Ser His Tyr Ala Asp Val Asp Pro Glu Asn
 35 40 45
 Gln Asn Phe Leu Leu Glu Ser Asn Leu Gly Lys Lys Lys Tyr Glu Thr
 50 55 60
 Glu Phe His Pro Gly Thr Thr Ser Phe Gly Met Ser Val Phe Asn Leu
 65 70 75 80
 Ser Asn Ala Ile Val Gly Ser Gly Ile Leu Gly Leu Ser Tyr Ala Met
 85 90 95
 Ala Asn Thr Gly Ile Ala Leu Phe Ile Ile Leu Leu Thr Phe Val Ser
 100 105 110
 Ile Phe Ser Leu Tyr Ser Val His Leu Leu Leu Lys Thr Ala Asn Glu
 115 120 125
 Gly Gly Ser Leu Leu Tyr Glu Gln Leu Gly Tyr Lys Ala Ser Gly Leu
 130 135 140
 Val Gly Lys Leu
 145

<210> 4731

<211> 2417

<212> DNA

<213> Homo sapiens

<400> 4731

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 120
 ttggaagaca gctgaggaaa aaggcgccaa taagacaaac tcacagatgg gatttatctc
 180
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 240
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 300
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 360
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 420
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 480
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 540
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 780

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2280
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<210> 4732
<211> 129
<212> PRT
<213> Homo sapiens

<400> 4732
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20 25 30
Ala Arg Met Ala Gly His Val Ser Val Leu Val Ser His Phe Pro Pro
35 40 45
Ser Val Thr Tyr Leu Gly Ile Pro Gln Gly Leu Leu Glu Cys Asp Cys
50 55 60
Pro Leu Pro Ser Cys Leu Gly Tyr Lys Ser Trp Pro Tyr Val Pro Ala
65 70 75 80
Val Arg Gly Ser Gly Asn Pro Thr Gln Pro Pro Val Leu Gly Trp Ser
85 90 95
Val Ser Ile His Pro Leu Val Val Ile Glu Ala Ala Leu Pro Val Leu
100 105 110
Gly Glu Asp Ile Trp Ala Thr Arg Ala Pro Leu Ala Pro Ser Arg Arg
115 120 125
Lys

<210> 4733
<211> 543
<212> DNA
<213> Homo sapiens

<400> 4733
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120
tccattccca ataacgtgaa gctgcagtgt gtatcctgga acaaggaaca agggttcata
180
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240
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360
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420
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543

<210> 4734
 <211> 181
 <212> PRT
 <213> Homo sapiens

<400> 4734
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 1 5 10 15
 Val Glu Gly Leu Ser Gly Arg Arg Asp Pro Leu Gly Asp Pro Thr Met
 20 25 30
 Phe Phe Tyr Leu Ser Lys Lys Ile Ser Ile Pro Asn Asn Val Lys Leu
 35 40 45
 Gln Cys Val Ser Trp Asn Lys Glu Gln Gly Phe Ile Ala Cys Gly Gly
 50 55 60
 Glu Asp Gly Leu Leu Lys Val Leu Lys Leu Glu Thr Gln Thr Asp Asp
 65 70 75 80
 Ala Lys Leu Arg Gly Leu Ala Ala Pro Ser Asn Leu Ser Met Asn Gln
 85 90 95
 Thr Leu Glu Gly His Ser Gly Ser Val Gln Val Val Thr Trp Asn Glu
 100 105 110
 Gln Tyr Gln Lys Leu Thr Thr Ser Asp Glu Asn Gly Leu Ile Ile Val
 115 120 125
 Trp Met Leu Tyr Lys Gly Ser Trp Ile Glu Glu Met Ile Asn Asn Arg
 130 135 140
 Asn Lys Ser Val Val Arg Ser Met Ser Trp Asn Ala Asp Gly Gln Lys
 145 150 155 160
 Ile Cys Ile Val Tyr Glu Asp Gly Ala Val Ile Val Gly Ser Val Asp
 165 170 175
 Gly Asn Arg Ile Trp
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<210> 4735
 <211> 300
 <212> DNA
 <213> Homo sapiens

<400> 4735
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 aggagctgcc ggcggctctg ccaagtccag cagcaatggg cctgtggcca gtgcacagta
 180
 cgtgtcccgag gcaaaagcct cagctttgca gcagcagcag tactaccagt ggtaccagca
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<210> 4736
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 4736

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Met Val Ala Gly Ala Gly Arg Glu Asn Gly Met Glu Thr Pro Met His
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Glu Asn Pro Glu Trp Glu Lys Ala Arg Gln Ala Leu Ala Ser Ile Ser
 20           25           30
Lys Ser Gly Ala Ala Gly Gly Ser Ala Lys Ser Ser Ser Asn Gly Pro
 35           40           45
Val Ala Ser Ala Gln Tyr Val Ser Gln Ala Lys Ala Ser Ala Leu Gln
 50           55           60
Gln Gln Gln Tyr Tyr Gln Trp Tyr Gln Gln Asp Asn Tyr Ala Tyr Pro
 65           70           75           80
Tyr Ser Tyr Tyr Tyr Pro Met Pro Pro Gly Pro Gly Met
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<210> 4737

<211> 2602

<212> DNA

<213> Homo sapiens

<400> 4737

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caagctcggc ccctttcaac tctgccaaaga atggctccca cctggctctc agacattccc
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240
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420
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480
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780
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900
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1020

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caaccttcag attccctgga gcctgagttt accaggaagt gccagtcctt gctgaaccgc
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1980
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2100
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2160
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2220
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2280
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2340
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2602

<210> 4738
 <211> 756
 <212> PRT
 <213> Homo sapiens

<400> 4738
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 20 25 30
 Thr Met Trp Glu Arg Asp Val Ser Ser Asp Arg Gln Glu Pro Gly Arg
 35 40 45
 Arg Gly Arg Ser Trp Gly Leu Glu Gly Ser Gln Ala Leu Ser Gln Gln
 50 55 60
 Ala Glu Val Ile Val Arg Gln Leu Gln Glu Leu Arg Arg Leu Glu Glu
 65 70 75 80
 Glu Val Arg Leu Leu Arg Glu Thr Ser Leu Gln Gln Lys Met Arg Leu
 85 90 95
 Glu Ala Gln Ala Met Glu Leu Glu Ala Leu Ala Arg Ala Glu Lys Ala
 100 105 110
 Gly Arg Ala Glu Ala Glu Gly Leu Arg Ala Ala Leu Ala Gly Ala Glu
 115 120 125
 Val Val Arg Lys Asn Leu Glu Gly Arg Gln Arg Glu Leu Glu Glu
 130 135 140
 Val Gln Arg Leu His Gln Glu Gln Leu Ser Ser Leu Thr Gln Ala His
 145 150 155 160
 Glu Glu Ala Leu Ser Ser Leu Thr Ser Lys Ala Glu Gly Leu Glu Lys
 165 170 175
 Ser Leu Ser Ser Leu Glu Thr Arg Arg Ala Gly Glu Ala Lys Glu Leu
 180 185 190
 Ala Glu Ala Gln Arg Glu Ala Glu Leu Leu Arg Lys Gln Leu Ser Lys
 195 200 205
 Thr Gln Glu Asp Leu Glu Ala Gln Val Thr Leu Val Glu Asn Leu Arg
 210 215 220
 Lys Tyr Val Gly Glu Gln Val Pro Ser Glu Val His Ser Gln Thr Trp
 225 230 235 240
 Glu Leu Glu Arg Gln Lys Leu Leu Glu Thr Met Gln Leu Leu Gln Glu
 245 250 255
 Asp Arg Asp Ser Leu His Ala Thr Ala Glu Leu Leu Gln Val Arg Val
 260 265 270
 Gln Ser Leu Thr His Ile Leu Ala Leu Gln Glu Glu Glu Leu Thr Arg
 275 280 285
 Lys Val Gln Pro Ser Asp Ser Leu Glu Pro Glu Phe Thr Arg Lys Cys
 290 295 300
 Gln Ser Leu Leu Asn Arg Trp Arg Glu Lys Val Phe Ala Leu Met Val
 305 310 315 320
 Gln Leu Lys Ala Gln Glu Leu Glu His Ser Asp Ser Val Lys Gln Leu
 325 330 335
 Lys Gly Gln Val Ala Ser Leu Gln Glu Lys Val Thr Ser Gln Ser Gln
 340 345 350
 Glu Gln Ala Ile Leu Gln Arg Ser Leu Gln Asp Lys Ala Ala Glu Val
 355 360 365
 Glu Val Glu Arg Met Gly Ala Lys Gly Leu Gln Leu Glu Leu Ser Arg

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      370              375              380
Ala Gln Glu Ala Arg Arg Trp Trp Gln Gln Gln Thr Ala Ser Ala Glu
385              390              395              400
Glu Gln Leu Arg Leu Val Val Asn Ala Val Ser Ser Ser Gln Ile Trp
      405              410              415
Leu Glu Thr Thr Met Ala Lys Val Glu Gly Ala Ala Ala Gln Leu Pro
      420              425              430
Ser Leu Asn Asn Arg Leu Ser Tyr Ala Val Arg Lys Val His Thr Ile
      435              440              445
Arg Gly Leu Ile Ala Arg Lys Leu Ala Leu Ala Gln Leu Arg Gln Glu
      450              455              460
Ser Cys Pro Leu Pro Pro Val Thr Asp Val Ser Leu Glu Leu Gln
465              470              475              480
Gln Leu Arg Glu Glu Arg Asn Arg Leu Asp Ala Glu Leu Gln Leu Ser
      485              490              495
Ala Arg Leu Ile Gln Gln Glu Val Gly Arg Ala Arg Glu Gln Gly Glu
      500              505              510
Ala Glu Arg Gln Gln Leu Ser Lys Val Ala Gln Gln Leu Glu Gln Glu
      515              520              525
Leu Gln Gln Thr Gln Glu Ser Leu Ala Ser Leu Gly Leu Gln Leu Glu
      530              535              540
Val Ala Arg Gln Gly Gln Gln Glu Ser Thr Glu Glu Ala Ala Ser Leu
545              550              555              560
Arg Gln Glu Leu Thr Gln Gln Gln Glu Leu Tyr Gly Gln Ala Leu Gln
      565              570              575
Glu Lys Val Ala Glu Val Glu Thr Arg Leu Arg Glu Gln Leu Ser Asp
      580              585              590
Thr Glu Arg Arg Leu Asn Glu Ala Arg Arg Glu His Ala Lys Ala Val
      595              600              605
Val Ser Leu Arg Gln Ile Gln Arg Arg Ala Ala Gln Glu Lys Glu Arg
      610              615              620
Ser Gln Glu Leu Arg Arg Leu Gln Glu Glu Ala Arg Lys Glu Glu Gly
625              630              635              640
Gln Arg Leu Ala Arg Arg Leu Gln Glu Leu Glu Arg Asp Lys Asn Leu
      645              650              655
Met Leu Ala Thr Leu Gln Gln Glu Gly Leu Leu Ser Arg Tyr Lys Gln
      660              665              670
Gln Arg Leu Leu Thr Val Leu Pro Ser Leu Leu Asp Lys Lys Lys Ser
      675              680              685
Val Val Ser Ser Pro Arg Pro Pro Glu Cys Ser Ala Ser Ala Pro Val
      690              695              700
Ala Ala Ala Val Pro Thr Arg Glu Ser Ile Lys Gly Ser Leu Ser Val
705              710              715              720
Leu Leu Asp Asp Leu Gln Asp Leu Ser Glu Ala Ile Ser Lys Glu Glu
      725              730              735
Ala Val Cys Gln Gly Asp Asn Leu Asp Arg Cys Ser Ser Ser Asn Pro
      740              745              750
Gln Met Ser Ser
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<210> 4739

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4739

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 120
 tagccctctc tctgtctct ttaaactctg aacttctagg atgggagaat gggaactttt
 180
 gcaggttgag attcatagtg aaatcgggtc aagaagtgat cagatgcaaa gcacagggca
 240
 gttcattact ataccatggc tgaggtcttc ctgggcacca ggccctgggc tcagcacttg
 300
 gctcagtctg caccttgga cctgccagag cctccacag caggtgctct caggcaaggc
 360
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 420
 ccaagcagga gggaaccatt agcagcctga ggagctggct ggctgggagc ctgggggacc
 480
 gccagcctt gctccagct caccacaag atgtggacag ctcttgctgt catttggatt
 540
 ttctcttgt ccttatctga aagccatgcy gcatccaacg atccacgtaa gtgagaaagc
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 684

<210> 4740

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4740

Met	Leu	Leu	Ser	Arg	Ala	Gln	His	Ala	Leu	Trp	Pro	Pro	Trp	Ala	His
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Pro	Ala	Val	Thr	Gln	Leu	Ser	His	Leu	Arg	Gly	Ser	Leu	Asp	Ala	Ala
			20					25					30		
Trp	Leu	Ser	Asp	Lys	Asp	Lys	Glu	Lys	Ile	Gln	Met	Ser	Thr	Arg	Ala
		35				40					45				
Val	His	Ile	Leu	Trp	Val	Ser	Trp	Glu	Gln	Gly	Trp	Ala	Val	Pro	Glu
	50				55					60					
Ala	Pro	Ser	Gln	Pro	Ala	Pro	Gln	Ala	Ala	Asn	Gly	Ser	Leu	Leu	Leu
65				70					75					80	
Gly	Gln	Gly	Ile	Cys	Gly	Gln	Glu	Ser	Thr	Leu	Val	Arg	Arg	Arg	Leu
			85				90						95		
Ala	Ser	Asn	Thr	Gln	Pro	Cys	Leu	Arg	Ala	Pro	Ala	Val	Glu	Gly	Ser
			100				105						110		
Gly	Arg	Val	Gln	Gly	Ala	Asp									
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<210> 4741

<211> 411

<212> DNA

<213> Homo sapiens

<400> 4741

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 120
 ttccgaaaaa aagaggggaa ttttttaaaa aaccgaaaag gggggaaggg ggggggtata
 180
 aaagataaaa tttgggtttt tgggggggaa aatttggaac cccaccctc gggttttttt
 240
 tccccacccc aaaaaatttt aaaagggggc cctaaaaaaa attttttctt taatttccaa
 300
 ataaaaaaa aatgggggttc caaaatcatt gaaaaatagg ggggactcca aaaccttgaa
 360
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 411

<210> 4742

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4742

Met	Ile	Leu	Glu	Pro	His	Phe	Phe	Phe	Ile	Trp	Lys	Leu	Lys	Lys	Lys
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Phe	Phe	Leu	Gly	Pro	Pro	Phe	Lys	Ile	Phe	Trp	Gly	Gly	Glu	Lys	Lys
			20					25					30		
Pro	Glu	Gly	Gly	Val	Ser	Lys	Phe	Ser	Pro	Pro	Lys	Asn	Gln	Ile	Leu
		35					40					45			
Ser	Phe	Ile	Pro	Pro	Pro	Phe	Pro	Pro	Phe	Gly	Phe	Phe	Lys	Lys	Phe
	50					55				60					
Pro	Ser	Phe	Phe	Arg	Lys	Gly	Lys	Gly	Gly	Glu	Arg	Gly	Gly	Gln	Arg
65				70				75						80	
Lys	Thr	Pro	Phe	Phe	Phe	Leu	Arg	Lys	Lys	Arg	Glu	Lys	Lys	Lys	Lys
			85					90						95	
Lys	Glu	Arg	Lys	Thr	Pro	Val	Asp	Leu	Arg	Glu	Val	Asn			
			100					105							

<210> 4743

<211> 473

<212> DNA

<213> Homo sapiens

<400> 4743

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 120
 gagtgattga gtcccggtat ctgcagtatg aaaagaagac aaccctaaaag gtcctgcag
 180
 gagatgggtc acagaccga gggaagatgt ctgaagggtg aaggaaatcc agcctgctcc
 240
 agaaaagcaa agcagatagc agtggggctg gaaagggtga cctgcagtcc acgttgctgg
 300

aagggcatgg cacagctcca cctgacctgg atctctctgc tattaatgac aaaagcatcg
 360
 tcaaaaagac gccacagtta gcaaaaacaa tatcaaagaa acctgagtca acatcatttt
 420
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 473

<210> 4744

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4744

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Thr	Asn	Ser	Ser	Ser	Ala	Lys	Lys	Lys	Asp	Lys	Arg	Val	Gln	Gly	Gly
			20					25					30		
Arg	Val	Ile	Glu	Ser	Arg	Tyr	Leu	Gln	Tyr	Glu	Lys	Lys	Thr	Thr	Gln
		35					40					45			
Lys	Ala	Pro	Ala	Gly	Asp	Gly	Ser	Gln	Thr	Arg	Gly	Lys	Met	Ser	Glu
	50					55					60				
Gly	Gly	Arg	Lys	Ser	Ser	Leu	Leu	Gln	Lys	Ser	Lys	Ala	Asp	Ser	Ser
65					70				75					80	
Gly	Val	Gly	Lys	Gly	Asp	Leu	Gln	Ser	Thr	Leu	Leu	Glu	Gly	His	Gly
				85				90						95	
Thr	Ala	Pro	Pro	Asp	Leu	Asp	Leu	Ser	Ala	Ile	Asn	Asp	Lys	Ser	Ile
			100				105							110	
Val	Lys	Lys	Thr	Pro	Gln	Leu	Ala	Lys	Thr	Ile	Ser	Lys	Lys	Pro	Glu
		115				120						125			
Ser	Thr	Ser	Phe	Ser	Ala	Pro	Arg	Lys	Lys	Ser	Pro	Asp	Leu	Ser	Glu
	130					135					140				
Ala	Asn	Gly	Met	Met	Glu										
145					150										

<210> 4745

<211> 666

<212> DNA

<213> Homo sapiens

<400> 4745

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 180
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 240
 aaaaatgagg gtccagatta tagactctac aagagtgaac cagagttaac aacagtggca
 300
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 360
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 420

cccgaatctt cgacaatagc ttcctatgta accttgagga aaactaagaa gatgatggat
 480
 ctaagaacgg aaagaccaag aagtgcagtg gaacagctct gtttggtga aagtactcga
 540
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 660
 ccttaa
 666

<210> 4746
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 4746
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 35 40 45
 Gln Asp Val Met Glu Gly Leu Ser Lys His Lys Gln Gln Arg Gly Thr
 50 55 60
 Thr Glu Ile Gly Met Ile Gly Ser Lys Pro Phe Ser Thr Val Lys Tyr
 65 70 75 80
 Lys Asn Glu Gly Pro Asp Tyr Arg Leu Tyr Lys Ser Glu Pro Glu Leu
 85 90 95
 Thr Thr Val Ala Glu Val Asp Glu Ser Asn Gly Glu Glu Lys Ser Glu
 100 105 110
 Pro Val Ser Glu Ile Glu Thr Ser Val Val Lys Gly Ser His Phe Pro
 115 120 125
 Val Gly Val Val Pro Pro Arg Ala Lys Ser Pro Thr Pro Glu Ser Ser
 130 135 140
 Thr Ile Ala Ser Tyr Val Thr Leu Arg Lys Thr Lys Lys Met Met Asp
 145 150 155 160
 Leu Arg Thr Glu Arg Pro Arg Ser Ala Val Glu Gln Leu Cys Leu Ala
 165 170 175
 Glu Ser Thr Arg Pro Arg Met Thr Val Glu Glu Gln Met Glu Arg Ile
 180 185 190
 Arg Arg Tyr Gln Gln Ala Cys Leu Arg Glu Lys Lys Lys Gly Leu Asn
 195 200 205
 Val Ile Gly Ala Ser Asp Gln Ser Pro Leu Gln Ser Pro
 210 215 220

<210> 4747
 <211> 1091
 <212> DNA
 <213> Homo sapiens

<400> 4747
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 120
 ggctgcagcc tccggcactt tgccctgcgaa cagaacctgc tgtcgcggcc agatggctct
 180
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 240
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 420
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 540
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 660
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 720
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 780
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 840
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 900
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 960
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 1091

<210> 4748

<211> 273

<212> PRT

<213> Homo sapiens

<400> 4748

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Met	Glu	Glu	Glu	Thr	His	Thr	Asp	Ala	Lys	Ile	Arg	Ala	Glu	Asn	Gly
			20					25				30			
Thr	Gly	Ser	Ser	Pro	Arg	Gly	Pro	Gly	Cys	Ser	Leu	Arg	His	Phe	Ala
		35				40					45				
Cys	Glu	Gln	Asn	Leu	Leu	Ser	Arg	Pro	Asp	Gly	Ser	Ala	Ser	Phe	Leu
	50				55					60					
Gln	Gly	Asp	Thr	Ser	Val	Leu	Ala	Gly	Val	Tyr	Gly	Pro	Ala	Glu	Val
65					70				75					80	
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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 4755

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<211> 188

<212> PRT

<213> Homo sapiens

<400> 4756

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Met	Trp	Gly	Val	Ile	Tyr	Leu	Arg	Asn	Val	Asp	Pro	Pro	Val	Trp	Tyr
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<211> 272

<212> DNA

<213> Homo sapiens

<400> 4757

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<210> 4758

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4758

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Cys	Gln	Glu	Gly	Glu	Thr	Lys	Glu	Leu	Val	Ile	Arg	Ser	His	Leu	Lys
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Ala	Cys	Arg	Ala	Val	Ala	Phe	Ser	Glu	Asp	Gly	Gln	Lys	Leu	Ile	Thr
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Val	Ser	Lys	Asp	Lys	Ala	Ile	His	Val	Leu						
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<210> 4759

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4759

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<211> 78

<212> PRT

<213> Homo sapiens

<400> 4760

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		20						25					30		
Lys	Gly	Gln	Thr	Lys	Thr	Leu	Phe	Glu	Phe	Ser	Ser	Ser	Arg	Ala	Gly
		35					40					45			
Phe	Leu	Pro	Leu	Trp	Asp	Val	Ala	Ala	Thr	Asp	Phe	Gly	Gln	Thr	Asn
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Gln	Lys	Phe	Gly	Phe	Glu	Leu	Gly	Pro	Val	Cys	Phe	Ser	Ser		
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<210> 4761

<211> 3973

<212> DNA

<213> Homo sapiens

<400> 4761

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<211> 251

<212> PRT

<213> Homo sapiens

<400> 4762

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Lys	Gly	Trp	Pro	Pro	Lys	Tyr	Ser	Thr	Trp	Glu	Pro	Glu	Glu	His	Ile	35	40	45	
Leu	Asp	Pro	Arg	Leu	Val	Met	Ala	Tyr	Glu	Glu	Lys	Glu	Glu	Arg	Asp	50	55	60	
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Leu	Gln	Arg	Leu	Tyr	Ser	Met	Asp	Leu	Arg	Ser	Ser	His	Lys	Ala	Lys	85	90	95	
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Gly	Pro	Leu	Val	Pro	Thr	Leu	Pro	Phe	Pro	Leu	Arg	Lys	Pro	Arg	Lys	130	135	140	
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Ile	Thr	Ala	Asn	Ser	Ile	Thr	Val	Thr	Phe	Arg	Glu	Ala	Gln	Ala	Ala	225	230	235	240
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<210> 4763
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<212> DNA
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<400> 4763
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<210> 4764

<211> 719

<212> PRT

<213> Homo sapiens

<400> 4764

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Thr	Glu	Glu	Thr	Glu	Lys	Leu	Lys	Asn	Asp	Gln	Gln	Ala	Lys	Ile	Pro
			20					25					30		
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		35				40					45				
Lys	Gly	Pro	Leu	Cys	Lys	Ser	Val	Thr	Pro	Thr	Lys	Glu	Phe	Leu	Lys
		50				55					60				
Asp	Glu	Ile	Lys	Gln	Glu	Glu	Glu	Thr	Cys	Lys	Arg	Ile	Ser	Thr	Ile
65				70					75					80	
Thr	Ala	Leu	Gly	His	Glu	Gly	Lys	Gln	Leu	Val	Asn	Gly	Glu	Val	Ser
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Asp	Glu	Arg	Val	Ala	Pro	Asn	Phe	Lys	Thr	Glu	Pro	Ile	Glu	Thr	Lys
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Phe	Tyr	Glu	Thr	Lys	Glu	Glu	Ser	Tyr	Ser	Pro	Ser	Lys	Asp	Arg	Asn
		115					120					125			
Ile	Ile	Thr	Glu	Gly	Asn	Gly	Thr	Glu	Ser	Leu	Asn	Ser	Val	Ile	Thr
		130				135					140				
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			165					170					175		
Gln	Ile	Glu	Glu	Pro	Asp	Pro	Pro	Glu	Met	Glu	Thr	Ser	Leu	Asp	Ser

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225      230      235      240
Lys Lys Thr Phe Leu Asp Lys Asp Ala Gln Arg Leu Ser Pro Ile Pro
245      250      255
Glu Glu Val Pro Lys Ser Thr Leu Glu Ser Glu Lys Pro Gly Ser Pro
260      265      270
Glu Ala Ala Glu Thr Ser Pro Pro Ser Asn Ile Ile Asp His Cys Glu
275      280      285
Lys Leu Ala Ser Glu Lys Glu Val Val Glu Cys Gln Ser Thr Ser Thr
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Val Gly Gly Gln Ser Val Lys Lys Val Asp Leu Glu Thr Leu Lys Glu
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Asp Ser Glu Phe Thr Lys Val Glu Met Asp Asn Leu Asp Asn Ala Gln
325      330      335
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Ser Lys Phe Lys Tyr Lys Leu Val Pro Glu Glu Glu Thr Thr Ala Ser
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Glu Asn Thr Glu Ile Thr Ser Glu Arg Gln Lys Glu Gly Ile Lys Leu
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Thr Ile Arg Ile Ser Ser Arg Lys Lys Lys Pro Asp Ser Pro Pro Lys
385      390      395      400
Val Leu Glu Pro Glu Asn Lys Gln Glu Lys Thr Glu Lys Glu Glu Glu
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Lys Thr Asn Val Gly Arg Thr Leu Arg Arg Ser Pro Arg Ile Ser Arg
420      425      430
Pro Thr Ala Lys Val Ala Glu Ile Arg Asp Gln Lys Ala Asp Lys Lys
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Arg Gly Glu Gly Glu Asp Glu Val Glu Glu Glu Ser Thr Ala Leu Gln
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Lys Thr Asp Lys Lys Glu Ile Leu Lys Lys Ser Glu Lys Asp Thr Asn
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545      550      555      560
Ser Cys Asp Ser Gly Tyr His Thr Ala Cys Leu Arg Pro Pro Leu Met
565      570      575
Ile Ile Pro Asp Gly Glu Trp Phe Cys Pro Pro Cys Gln His Lys Leu
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595      600      605
Lys Lys Lys Glu Arg Ala Glu Arg Arg Lys Glu Arg Leu Val Tyr Val

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Phe Asp Glu Phe Asp Glu Ala Ile Asp Glu Ala Ile Glu Asp Asp Ile		670
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<211> 1707

<212> DNA

<213> Homo sapiens

<400> 4765

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<211> 280

<212> PRT

<213> Homo sapiens

<400> 4766

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			20					25					30		
Pro	Glu	Pro	Arg	Arg	Thr	Glu	His	Arg	Ala	Pro	Ser	Ser	Thr	Trp	Arg
		35				40						45			
Pro	Val	Ala	Leu	Thr	Leu	Leu	Thr	Leu	Cys	Leu	Val	Leu	Leu	Ile	Gly
	50				55					60					
Leu	Ala	Ala	Leu	Gly	Leu	Leu	Phe	Phe	Gln	Tyr	Tyr	Gln	Leu	Ser	Asn
65				70					75					80	
Thr	Gly	Gln	Asp	Thr	Ile	Ser	Gln	Met	Glu	Glu	Arg	Leu	Gly	Asn	Thr
			85					90					95		
Ser	Gln	Glu	Leu	Gln	Ser	Leu	Gln	Val	Gln	Asn	Ile	Lys	Leu	Ala	Gly
		100				105						110			
Ser	Leu	Gln	His	Val	Ala	Glu	Lys	Leu	Cys	Arg	Glu	Leu	Tyr	Asn	Lys
	115					120					125				
Ala	Gly	Ala	His	Arg	Cys	Ser	Pro	Cys	Thr	Glu	Gln	Trp	Lys	Trp	His
	130				135					140					
Gly	Asp	Asn	Cys	Tyr	Gln	Phe	Tyr	Lys	Asp	Ser	Lys	Ser	Trp	Glu	Asp
145				150					155					160	
Cys	Lys	Tyr	Phe	Cys	Leu	Ser	Glu	Asn	Ser	Thr	Met	Leu	Lys	Ile	Asn
			165					170					175		
Lys	Gln	Glu	Asp	Leu	Glu	Phe	Ala	Ala	Ser	Gln	Ser	Tyr	Ser	Glu	Phe

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<212> PRT
<213> Homo sapiens
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Asp	Phe	Ser	Glu	Ala	Asp	Leu	Val	Asp	Val	Ser	Ala	Tyr	Ser	Gly	Leu	
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Glu	Gly	Asp	Gly	Glu	Pro	Pro	Tyr	Glu	Pro	Glu	Ser	Gly	Cys	Val	Glu	
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Ile	Pro	Gly	Leu	Ser	Glu	Glu	Glu	Asp	Pro	Ala	Pro	Ser	Arg	Lys	Ile	
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His	Phe	Ser	Thr	Ala	Pro	Ile	Gln	Val	Phe	Ser	Thr	Tyr	Ser	Asn	Glu	
			100					105					110			
Asp	Tyr	Asp	Arg	Arg	Asn	Glu	Asp	Val	Asp	Pro	Met	Ala	Ala	Ser	Ala	
		115					120					125				
Glu	Tyr	Glu	Leu	Glu	Lys	Arg	Val	Glu	Arg	Leu	Glu	Leu	Phe	Pro	Val	
	130					135					140					
Glu	Leu	Glu	Lys	Asp	Ser	Glu	Gly	Leu	Gly	Ile	Ser	Ile	Ile	Gly	Met	
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Gly	Ala	Gly	Ala	Asp	Met	Gly	Leu	Glu	Lys	Leu	Gly	Ile	Phe	Val	Lys	
				165					170					175		
Thr	Val	Thr	Glu	Gly	Gly	Ala	Ala	His	Arg	Asp	Gly	Arg	Ile	Gln	Val	
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Asn	Asp	Leu	Leu	Val	Glu	Val	Asp	Gly	Thr	Ser	Leu	Val	Gly	Val	Thr	
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Gln	Ser	Phe	Ala	Ala	Ser	Val	Leu	Arg	Asn	Thr	Lys	Gly	Arg	Val	Arg	
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Phe	Met	Ile	Gly	Arg	Glu	Arg	Pro	Gly	Glu	Gln	Ser	Glu	Val	Ala	Gln	
225					230					235					240	
Leu	Ile	Gln	Gln	Thr	Leu	Glu	Gln	Glu	Arg	Trp	Gln	Arg	Glu	Met	Met	
				245					250					255		
Glu	Gln	Arg	Tyr	Ala	Gln	Tyr	Gly	Glu	Asp	Asp	Glu	Glu	Thr	Gly	Glu	
			260					265					270			
Tyr	Ala	Thr	Asp	Glu	Asp	Glu	Glu	Leu	Ser	Pro	Thr	Phe	Pro	Gly	Gly	

		275					280					285					
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	290					295					300						
Ser	Pro	Val	Asp	Met	Glu	Pro	Glu	Lys	Leu	Val	His	Lys	Phe	Lys	Glu		
305					310					315					320		
Leu	Gln	Ile	Lys	His	Ala	Val	Thr	Glu	Ala	Glu	Ile	Gln	Gln	Leu	Lys		
				325					330					335			
Arg	Lys	Leu	Gln	Ser	Leu	Glu	Gln	Glu	Lys	Gly	Arg	Trp	Arg	Val	Glu		
			340					345					350				
Lys	Ala	Gln	Leu	Glu	Gln	Ser	Val	Glu	Glu	Asn	Lys	Glu	Arg	Met	Glu		
	355						360					365					
Lys	Leu	Glu	Gly	Tyr	Trp	Gly	Glu	Ala	Gln	Ser	Leu	Cys	Gln	Ala	Val		
	370					375					380						
Asp	Glu	His	Leu	Arg	Glu	Thr	Gln	Ala	Gln	Tyr	Gln	Ala	Leu	Glu	Arg		
385					390					395					400		
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				405					410					415			
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		420						425					430				
Ser	Glu	Leu	Ala	Arg	Lys	Glu	Glu	Met	Asp	Lys	Leu	Leu	Asp	Lys	Ile		
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<212> PRT

<213> Homo sapiens

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			20					25					30		
Leu	Ser	Val	Leu	Thr	Glu	Cys	Ala	Arg	Met	His	Arg	Pro	Ala	Arg	Lys
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Phe	Leu	Lys	Ala	Gln	Val	Leu	Pro	Pro	Leu	Arg	Asp	Val	Arg	Thr	Arg
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Lys	Glu	Ala	Lys	Ala	Ser	Ile	Asn	Pro	Val	Thr	Gly	Arg	Val	Glu	Glu

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<212> DNA

<213> Homo sapiens

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 Lys Arg Ala Lys Leu Ile Ser Thr Val Ser Lys Lys Asp Phe Ile Ser
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Leu Trp Leu His Cys Pro Pro Cys Tyr Phe Phe Glu Arg Ala Asn His
      35              40              45
Thr Ala Thr Ser Leu Pro Leu His Leu Leu Ser Leu Leu Leu Thr
      50              55              60
Ile His Ala Ala His Pro Val Thr Ser Phe Gln Phe Leu Leu Thr Phe

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<213> Homo sapiens

<400> 4778

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Val	Cys	Leu	His	Val	Asp	Lys	Asp	Lys	Val	Ser	Val	Glu	Phe	Cys	Ser

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<210> 4779

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<212> DNA

<213> Homo sapiens

<400> 4779

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<212> PRT

<213> Homo sapiens

<400> 4780

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Ser Ser Glu Gly Gly Gln Leu Arg His Asn Pro Leu Asp Ile Gln Met
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Leu Ser Arg Gly Leu His Glu Gln Ile Phe Gly Gln Gly Gly Glu Met
 85           90           95
Pro Gly Glu Ala Ala Val Arg Arg Ser Val Glu His Leu Gln Lys His
100           105           110
Gly Leu Trp Gly Gln Pro Ala Val Pro Leu Pro Asp Val Glu Leu Arg
115           120           125
Leu Pro Pro Leu Tyr Gly Asp Asn Leu Asp Gln His Phe Arg Leu Leu
130           135           140
Ala Gln Lys Gln Ser Leu Pro Tyr Leu Glu Ala Ala Asn Leu Leu Leu
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Gln Ala Gln Leu Pro Pro Lys Pro Pro Ala Trp Ala Trp Ala Glu Gly
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Trp Thr Arg Tyr Gly Pro Glu Gly Glu Ala Val Pro Val Ala Ile Pro
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Glu Glu Arg Ala Leu Val Phe Asp Val Glu Val Cys Leu Ala Glu Gly
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Thr Cys Pro Thr Leu Ala Val Ala Ile Ser Pro Ser Ala Trp Tyr Ser
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Ser Ser Val Asn Ser Leu Ala Glu Val His Arg Leu Tyr Val Gly Gly
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Phe	Lys	Gln	Lys	Lys	Ala	Lys	Lys	Val	Lys	Lys	Glu	Pro	Ala	Thr	Ala
			500					505					510		
Ser	Lys	Leu	Pro	Ile	Glu	Gly	Ala	Gly	Ala	Pro	Gly	Asp	Pro	Met	Asp
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Leu	Thr	Ala	Arg	Gly	Gly	Pro	Lys	Asp	Thr	Gln	Pro	Ser	Tyr	His	His
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 Leu Ala Leu Gln Ile Thr Asn Leu Leu Thr Arg Cys Met Phe Ala Tyr
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 Lys Leu Gly Leu Asn Asp Leu Pro Gln Ser Val Ala Phe Phe Ser Ala
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 Thr Pro Ser Asn Pro Thr Gly Met Glu Arg Arg Tyr Gly Ile Pro Gln
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 <211> 344
 <212> DNA
 <213> Homo sapiens

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 35 40 45
 Ser Glu Lys His Gln Gly Lys Ala Ala Thr Thr Ala Lys Thr Leu Ile
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 Pro Lys Ser Gln His Arg Met Leu Ala Pro Thr Gly Ala Val Ser Thr
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<210> 4784

<211> 212

<212> PRT

<213> Homo sapiens

<400> 4784

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			20					25					30		
Ala	Leu	Asn	Leu	Ser	Leu	Cys	Lys	Gln	Ile	Thr	Asp	Ser	Ser	Leu	Gly
		35				40					45				
Arg	Ile	Ala	Gln	Tyr	Leu	Lys	Gly	Leu	Glu	Val	Leu	Glu	Leu	Gly	Gly
	50				55				60						
Cys	Ser	Asn	Ile	Thr	Asn	Thr	Gly	Leu	Leu	Leu	Ile	Ala	Trp	Gly	Leu
65				70				75				80			
Gln	Arg	Leu	Lys	Ser	Leu	Asn	Leu	Arg	Ser	Cys	Arg	His	Leu	Ser	Asp
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Val	Gly	Ile	Gly	His	Leu	Ala	Gly	Met	Thr	Arg	Ser	Ala	Ala	Glu	Gly
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Cys	Leu	Gly	Leu	Glu	Gln	Leu	Thr	Leu	Gln	Asp	Cys	Gln	Lys	Leu	Thr

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Leu Asn Leu Ser Phe Cys Gly Gly Ile Ser Asp Ala Gly Leu Leu His		
145	150	155
Leu Ser His Met Gly Ser Leu Arg Ser Leu Asn Leu Arg Ser Cys Asp		160
	165	170
Asn Ile Ser Asp Thr Gly Ile Met His Leu Ala Met Gly Ser Leu Arg		175
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Leu Ala Tyr Ile		205
210		

<210> 4785
 <211> 3289
 <212> DNA
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<210> 4786

<211> 322

<212> PRT

<213> Homo sapiens

<400> 4786

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			20					25					30		
Val	Gly	Ala	Asp	Asn	Val	Gly	Ser	Lys	Gln	Met	Gln	Gln	Ile	Arg	Met
		35					40					45			
Ser	Leu	Arg	Gly	Lys	Ala	Val	Val	Leu	Met	Gly	Lys	Asn	Thr	Met	Met
	50					55					60				
Arg	Lys	Ala	Ile	Arg	Gly	His	Leu	Glu	Asn	Asn	Pro	Ala	Leu	Glu	Lys
65					70				75					80	
Leu	Leu	Pro	His	Ile	Arg	Gly	Asn	Val	Gly	Phe	Val	Phe	Thr	Lys	Glu
			85					90						95	
Asp	Leu	Thr	Glu	Ile	Arg	Asp	Met	Leu	Leu	Ala	Asn	Lys	Val	Pro	Ala
			100					105					110		
Ala	Ala	Arg	Ala	Gly	Ala	Ile	Ala	Pro	Cys	Glu	Val	Thr	Val	Pro	Ala
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Gln	Asn	Thr	Gly	Leu	Gly	Pro	Glu	Lys	Thr	Ser	Phe	Phe	Gln	Ala	Leu
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Gly	Ile	Thr	Thr	Lys	Ile	Ser	Arg	Gly	Thr	Ile	Glu	Ile	Leu	Ser	Asp
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			165					170					175		
Leu	Leu	Asn	Met	Leu	Asn	Ile	Ser	Pro	Phe	Ser	Phe	Gly	Leu	Val	Ile
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<210> 4787
<211> 1258
<212> DNA
<213> Homo sapiens
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<210> 4788

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4788

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Pro	Gly	Pro	Ser	Ser	Ser	Ile	Gly	Ser	Pro	Gln	Ala	Ser	Ser	Pro	Pro	35	40	45	
Arg	Pro	Asn	His	Tyr	Leu	Leu	Ile	Asp	Thr	Gln	Gly	Val	Pro	Tyr	Thr	50	55	60	
Val	Leu	Val	Asp	Glu	Glu	Ser	Gln	Arg	Glu	Pro	Gly	Ala	Ser	Gly	Ala	65	70	75	80
Pro	Gly	Gln	Lys	Lys	Cys	Tyr	Ser	Cys	Pro	Val	Cys	Ser	Arg	Val	Phe	85	90	95	
Glu	Tyr	Met	Ser	Tyr	Leu	Gln	Arg	His	Ser	Ile	Thr	His	Ser	Glu	Val	100	105	110	
Lys	Pro	Phe	Glu	Cys	Asp	Ile	Cys	Gly	Lys	Ala	Phe	Lys	Arg	Ala	Ser	115	120	125	
His	Leu	Ala	Arg	His	His	Ser	Ile	His	Leu	Ala	Gly	Gly	Gly	Arg	Pro	130	135	140	
His	Gly	Cys	Pro	Leu	Cys	Pro	Arg	Arg	Phe	Arg	Asp	Ala	Gly	Glu	Leu	145	150	155	160
Ala	Gln	His	Ser	Arg	Val	His	Ser	Gly	Glu	Arg	Pro	Phe	Gln	Cys	Pro	165	170	175	
His	Cys	Pro	Arg	Arg	Phe	Met	Glu	Gln	Asn	Thr	Leu	Gln	Lys	His	Thr	180	185	190	
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<210> 4789

<211> 1515

<212> DNA

<213> Homo sapiens

<400> 4789

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<210> 4790

<211> 241

<212> PRT

<213> Homo sapiens

<400> 4790

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Pro Glu Glu Leu Gly His Phe Tyr Asp Tyr Pro Met Ala Leu Phe Ser
          35           40           45
Thr Phe Glu Leu Phe Leu Thr Ile Ile Asp Gly Pro Ala Asn Tyr Asn
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Val Asp Leu Pro Phe Met Tyr Ser Ile Thr Tyr Ala Ala Phe Ala Ile
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Trp Phe Leu Arg Val Glu Asp Arg Gln Asp Leu Asn Arg Gln Arg Ile
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Gln Arg Tyr Ala Gln Ala Phe His Thr Arg Gly Ser Glu Asp Leu Asp
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Lys Asp Ser Val Glu Lys Leu Glu Leu Gly Cys Pro Phe Ser Pro His
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<210> 4791

<211> 4481

<212> DNA

<213> Homo sapiens

<400> 4791

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<211> 179

<212> PRT

<213> Homo sapiens

<400> 4792

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			115				120					125			
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<210> 4793

<211> 1242

<212> DNA

<213> Homo sapiens

<400> 4793

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<211> 118

<212> PRT

<213> Homo sapiens

<400> 4794

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<211> 2117

<212> DNA

<213> Homo sapiens

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<211> 541

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<213> Homo sapiens

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1620
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1740
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2040
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2160
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2220
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2280
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2340
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2400
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2460
ttaaagaaaa aaattaatgt ctaaagccta gcattcttgc agaaccctat actaacatgt
2520

aatggggaga ggggtggggca gatgagtaga gaaacagatt caagcctcaa gcttccaaag
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 2640
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 2700
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 2760
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 2820
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 2848

<210> 4798

<211> 401

<212> PRT

<213> Homo sapiens

<400> 4798

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Phe	Met	Tyr	Ile	Arg	Tyr	Thr	Gln	Pro	Pro	Thr	Asp	Leu	Trp	Asp	Trp
			20					25					30		
Phe	Glu	Ser	Phe	Leu	Asp	Asp	Glu	Glu	Asp	Leu	Asp	Val	Lys	Ala	Gly
		35					40					45			
Gly	Gly	Cys	Val	Met	Thr	Ile	Gly	Glu	Met	Leu	Arg	Ser	Phe	Leu	Thr
	50					55				60					
Lys	Leu	Glu	Trp	Phe	Ser	Thr	Leu	Phe	Pro	Arg	Ile	Pro	Val	Pro	Val
65					70					75					80
Gln	Lys	Asn	Ile	Asp	Gln	Gln	Ile	Lys	Thr	Arg	Pro	Arg	Lys	Ile	Lys
			85						90				95		
Lys	Asp	Gly	Lys	Glu	Gly	Ala	Glu	Glu	Ile	Asp	Arg	His	Val	Glu	Arg
			100					105					110		
Arg	Arg	Ser	Arg	Ser	Pro	Arg	Arg	Ser	Leu	Ser	Pro	Arg	Arg	Ser	Pro
		115					120					125			
Arg	Arg	Ser	Arg	Ser	Arg	Ser	His	His	Arg	Glu	Gly	His	Gly	Ser	Ser
	130					135					140				
Ser	Phe	Asp	Arg	Glu	Leu	Glu	Arg	Glu	Lys	Glu	Arg	Gln	Arg	Leu	Glu
145					150					155					160
Arg	Glu	Ala	Lys	Glu	Arg	Glu	Lys	Glu	Arg	Arg	Arg	Ser	Arg	Ser	Ile
			165					170					175		
Asp	Arg	Gly	Leu	Glu	Arg	Arg	Arg	Ser	Arg	Ser	Arg	Glu	Arg	His	Arg
			180					185				190			
Ser	Arg	Ser	Arg	Ser	Arg	Asp	Arg	Lys	Gly	Asp	Arg	Arg	Asp	Arg	Asp
		195					200					205			
Arg	Glu	Arg	Glu	Lys	Glu	Asn	Glu	Arg	Gly	Arg	Arg	Arg	Asp	Arg	Asp
	210					215						220			
Tyr	Asp	Lys	Glu	Arg	Gly	Asn	Glu	Arg	Glu	Lys	Glu	Arg	Glu	Arg	Ser
225					230					235					240
Arg	Glu	Arg	Ser	Lys	Glu	Gln	Arg	Ser	Arg	Gly	Glu	Val	Glu	Glu	Lys
			245						250				255		
Lys	His	Lys	Glu	Asp	Lys	Asp	Asp	Arg	Arg	His	Arg	Asp	Asp	Lys	Arg
			260					265				270			
Asp	Ser	Lys	Lys	Glu	Lys	Lys	His	Ser	Arg	Ser	Arg	Ser	Arg	Glu	Arg

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      275              280              285
Lys His Arg Ser Arg Ser Arg Ser Arg Asn Ala Gly Lys Arg Ser Arg
  290              295              300
Ser Arg Ser Lys Glu Lys Ser Ser Lys His Lys Asn Glu Ser Lys Glu
  305              310              315              320
Lys Ser Asn Lys Arg Ser Arg Ser Gly Ser Gln Gly Arg Thr Asp Ser
      325              330              335
Val Glu Lys Ser Lys Lys Arg Glu His Ser Pro Ser Lys Glu Lys Ser
      340              345              350
Arg Lys Arg Ser Arg Ser Lys Glu Arg Ser His Lys Arg Asp His Ser
      355              360              365
Asp Ser Lys Asp Gln Ser Asp Lys His Asp Arg Arg Arg Ser Gln Ser
      370              375              380
Ile Glu Gln Glu Ser Gln Glu Lys Gln His Lys Asn Lys Asp Glu Thr
  385              390              395              400
Val

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<210> 4799

<211> 358

<212> DNA

<213> Homo sapiens

<400> 4799

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120
ctggatcagc ctcatcaccg agtggctcaa cctcatcttc aagtggtag acagagaagc
180
cctccggcat cctgggtcccc acccccgagg gccctgagtc atgtgtttct ttttggagac
240
aggccctttt ggtgggtcca tgagtctggt tactacagcc aggctccagc ccaggttcac
300
cagttcccct cttcttgtga gactgggtcca ggcagccctt ctggacactg catgatca
358

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<210> 4800

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4800

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Ala Ser Leu Ala Gly Glu Arg Val Ala Leu Asp His Leu Ser Gly Arg
  1              5              10              15
Ser Gln Asp Pro Leu Ser Val Leu Leu Pro Arg Gly Leu Leu Arg Leu
      20              25              30
Pro Pro Cys Gly His Arg Gly Ala Leu Asp Gln Pro His His Arg Val
      35              40              45
Ala Gln Pro His Leu Gln Val Val Arg Gln Arg Ser Pro Pro Ala Ser
      50              55              60
Trp Ser Pro Pro Pro Arg Ala Leu Ser His Val Phe Leu Phe Gly Asp
      65              70              75              80
Arg Pro Phe Trp Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro

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	85		90		95
Ala Gln Val His Gln Phe Pro Ser Ser Cys Glu Thr Gly Pro Gly Ser					
	100		105		110
Pro Ser Gly His Cys Met Ile					
	115				

<210> 4801

<211> 1447

<212> DNA

<213> Homo sapiens

<400> 4801

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agccggggcc tggctggcag ctggggccgcc atggagtcca cgctggggcgc gggcatcgtg
120
atagccgagg cgctacagaa ccagctagcc tggctggaga acgtgtggct ctggatcacc
180
tttctgggcg atcccaagat cctctttctg ttctacttcc ccgcggccta ctacgcctcc
240
cgccgtgtgg gcatcgcggt gctctggatc agcctcatca ccgagtggct caacctcatc
300
ttcaagtggg ttcttttttg agacaggccc ttttggtggg tccatgagtc tggttactac
360
agccaggctc cagcccaggc tcaccagttc cctctttctt gtgagactgg tccaggcagc
420
ccttctggac actgcatgat cacaggagca gccctctggc ccataatgac agccctgtct
480
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540
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600
cagggtgctg ctggcctaata aactggcgct gtccctgggct ggctgatgac tnnccccgag
660
tgcctatgga gcgggagcgt aagcttctat gggttgactg cactggccct catgctaggc
720
accagcctca tctattggac cctctttaca ctgggccttg atctttcttg gtccatcagc
780
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840
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900
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960
gccatggggc tgctggggcc cctggactgg ctggggccacc cccctcagat cagcctcttc
1020
tacattttca atttctcaa gtacaccctc tggccatgcc tagtccctggc cctcgtgccc
1080
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1140
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1200
gaggcagccc catccccctc cagcccctaa gtaggccttc cctccctaa atctgcttcc
1260

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gcaccacctg gtcttagccc caaagatggg ccttctctct cccagataag ttgggtctcc
 1320
 ctctgccttt cctctcaagc ccccaaagag caaaggcaac agcaagacca gcgggttctt
 1380
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 1440
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 1447

<210> 4802

<211> 377

<212> PRT

<213> Homo sapiens

<400> 4802

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Arg	Pro	Gly	Ala	Ser	Arg	Gly	Leu	Val	Gly	Ser	Trp	Ala	Ala	Met	Glu
			20					25					30		
Ser	Thr	Leu	Gly	Ala	Gly	Ile	Val	Ile	Ala	Glu	Ala	Leu	Gln	Asn	Gln
		35					40					45			
Leu	Ala	Trp	Leu	Glu	Asn	Val	Trp	Leu	Trp	Ile	Thr	Phe	Leu	Gly	Asp
	50					55				60					
Pro	Lys	Ile	Leu	Phe	Leu	Phe	Tyr	Phe	Pro	Ala	Ala	Tyr	Tyr	Ala	Ser
65					70				75					80	
Arg	Arg	Val	Gly	Ile	Ala	Val	Leu	Trp	Ile	Ser	Leu	Ile	Thr	Glu	Trp
			85					90					95		
Leu	Asn	Leu	Ile	Phe	Lys	Trp	Phe	Leu	Phe	Gly	Asp	Arg	Pro	Phe	Trp
		100					105					110			
Trp	Val	His	Glu	Ser	Gly	Tyr	Tyr	Ser	Gln	Ala	Pro	Ala	Gln	Val	His
	115					120					125				
Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser	Pro	Ser	Gly	His
	130					135				140					
Cys	Met	Ile	Thr	Gly	Ala	Ala	Leu	Trp	Pro	Ile	Met	Thr	Ala	Leu	Ser
145					150				155					160	
Ser	Gln	Val	Ala	Thr	Arg	Ala	Arg	Ser	Arg	Trp	Val	Arg	Val	Met	Pro
			165					170					175		
Ser	Leu	Ala	Tyr	Cys	Thr	Phe	Leu	Leu	Ala	Val	Gly	Leu	Ser	Arg	Ile
	180						185					190			
Phe	Ile	Leu	Ala	His	Phe	Pro	His	Gln	Val	Leu	Ala	Gly	Leu	Ile	Thr
	195					200					205				
Gly	Ala	Val	Leu	Gly	Trp	Leu	Met	Thr	Xaa	Pro	Glu	Cys	Leu	Trp	Ser
	210					215					220				
Gly	Ser	Xaa	Ser	Phe	Tyr	Gly	Leu	Thr	Ala	Leu	Ala	Leu	Met	Leu	Gly
225					230				235					240	
Thr	Ser	Leu	Ile	Tyr	Trp	Thr	Leu	Phe	Thr	Leu	Gly	Leu	Asp	Leu	Ser
			245					250					255		
Trp	Ser	Ile	Ser	Leu	Ala	Phe	Lys	Trp	Cys	Glu	Arg	Pro	Glu	Trp	Ile
	260						265					270			
His	Val	Asp	Ser	Arg	Pro	Phe	Ala	Ser	Leu	Ser	Arg	Asp	Ser	Gly	Ala
	275					280					285				
Ala	Leu	Gly	Leu	Gly	Ile	Ala	Leu	His	Ser	Pro	Cys	Tyr	Ala	Gln	Val
	290				295					300					
Arg	Arg	Ala	Gln	Leu	Gly	Asn	Gly	Gln	Lys	Ile	Ala	Cys	Leu	Val	Leu

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305              310              315              320
Ala Met Gly Leu Leu Gly Pro Leu Asp Trp Leu Gly His Pro Pro Gln
              325              330              335
Ile Ser Leu Phe Tyr Ile Phe Asn Phe Leu Lys Tyr Thr Leu Trp Pro
              340              345              350
Cys Leu Val Leu Ala Leu Val Pro Trp Ala Val His Met Phe Ser Ala
              355              360              365
Gln Glu Ala Pro Pro Ile His Ser Ser
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<210> 4803

<211> 564

<212> DNA

<213> Homo sapiens

<400> 4803

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120
ccaaaacctg ctaatgcctg atttccatta cgtgctactc ctcaaattggc agcggcttct
180
gaatattaca gagatggtgt gctgtttgct tttctctttt gttgtagcat aaaactgttc
240
attttagctt agtgacattt gtcaagaata gcaacctttt tgcttccaag ggacttgaag
300
gaagttaa at ttagatgctt tcctctcttc ttattttgtg gaggtatttc ctgttcagta
360
gcaaatcagt tatagaatat attagcattg ttatatttta aaactaatgac taatcatttc
420
agctttattc atactgttgc attttatatt tcacagggag caatagaaaa agtgaaagaa
480
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540
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<210> 4804

<211> 53

<212> PRT

<213> Homo sapiens

<400> 4804

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Met Thr Asn His Phe Ser Phe Ile His Thr Val Ala Phe Tyr Ile Ser
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Gln Gly Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr
              20              25              30
Ser Lys Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser
              35              40              45
Ile Met Ser Tyr Ala
              50

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<210> 4805

<211> 1619

<212> DNA

<213> Homo sapiens

<400> 4805

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120
aaatccatgc agaaaaaact tcggagtaat tggaagattc agagcttaaa agatgaaatc
180
acatctgaga agttaaatgg agtaaaactg tggattacag ctgggcccaag ggaaaaattt
240
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300
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360
tatggaatca tggtaataa tgatgctgtg gttagaaatg tatatcacia atatttccat
420
cctaaagaag ctctagtttc cagtggagtc ttgaacaggg aaattagccg agctgcagga
480
aaggctgtgc tggcgatcat tgatgaggaa agcagtggaa acaatgcccc ggctctcacc
540
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600
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660
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720
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780
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900
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960
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1080
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1260
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1380
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1440
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1500

aataactcaga taggtataag atttttcaca aaatccttat gtaagataca ttccattttt
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<210> 4806

<211> 438

<212> PRT

<213> Homo sapiens

<400> 4806

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Glu	Ile	Phe	Thr	Thr	Asn	Asn	Gly	Tyr	Lys	Ser	Met	Gln	Lys	Lys	Leu
			20					25					30		
Arg	Ser	Asn	Trp	Lys	Ile	Gln	Ser	Leu	Lys	Asp	Glu	Ile	Thr	Ser	Glu
		35					40					45			
Lys	Leu	Asn	Gly	Val	Lys	Leu	Trp	Ile	Thr	Ala	Gly	Pro	Arg	Glu	Lys
	50					55					60				
Phe	Thr	Ala	Ala	Glu	Phe	Glu	Ile	Leu	Lys	Lys	Tyr	Leu	Asp	Thr	Gly
65					70					75				80	
Gly	Asp	Val	Leu	Val	Met	Leu	Gly	Glu	Gly	Gly	Glu	Ser	Arg	Phe	Asp
				85					90					95	
Thr	Asn	Ile	Asn	Phe	Leu	Leu	Glu	Glu	Tyr	Gly	Ile	Met	Val	Asn	Asn
			100					105					110		
Asp	Ala	Val	Val	Arg	Asn	Val	Tyr	His	Lys	Tyr	Phe	His	Pro	Lys	Glu
		115				120						125			
Ala	Leu	Val	Ser	Ser	Gly	Val	Leu	Asn	Arg	Glu	Ile	Ser	Arg	Ala	Ala
	130					135						140			
Gly	Lys	Ala	Val	Leu	Ala	Ile	Ile	Asp	Glu	Glu	Ser	Ser	Gly	Asn	Asn
145					150					155					160
Ala	Gln	Ala	Leu	Thr	Phe	Val	Tyr	Pro	Phe	Gly	Ala	Thr	Leu	Ser	Val
			165						170					175	
Met	Lys	Pro	Ala	Val	Ala	Val	Leu	Ser	Thr	Gly	Ser	Val	Cys	Phe	Pro
		180						185					190		
Leu	Asn	Arg	Pro	Ile	Leu	Ala	Phe	Tyr	His	Ser	Lys	Asn	Gln	Gly	Gly
		195					200					205			
Lys	Leu	Ala	Val	Leu	Gly	Ser	Cys	His	Met	Phe	Ser	Asp	Gln	Tyr	Leu
	210					215					220				
Asp	Lys	Glu	Glu	Asn	Ser	Lys	Ile	Met	Asp	Val	Val	Val	Phe	Gln	Trp
225					230					235					240
Leu	Thr	Thr	Gly	Asp	Ile	His	Leu	Asn	Gln	Ile	Asp	Ala	Glu	Asp	Pro
			245						250					255	
Glu	Ile	Ser	Asp	Tyr	Met	Met	Leu	Pro	Tyr	Thr	Ala	Thr	Leu	Ser	Lys
			260					265					270		
Arg	Asn	Arg	Glu	Cys	Leu	Gln	Glu	Ser	Asp	Glu	Ile	Pro	Arg	Asp	Phe
		275					280						285		
Thr	Thr	Leu	Phe	Asp	Leu	Ser	Ile	Phe	Gln	Leu	Asp	Thr	Thr	Ser	Phe
	290					295					300				
His	Ser	Val	Ile	Glu	Ala	His	Glu	Gln	Leu	Asn	Val	Lys	His	Glu	Pro
305					310					315					320
Leu	Gln	Leu	Ile	Gln	Pro	Gln	Phe	Glu	Thr	Pro	Leu	Pro	Thr	Leu	Gln
				325					330					335	
Pro	Ala	Val	Phe	Pro	Pro	Ser	Phe	Arg	Glu	Leu	Pro	Pro	Pro	Pro	Leu

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<210> 4808

<211> 313

<212> PRT

<213> Homo sapiens

<400> 4808

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Thr	Val	Tyr	Ile	Thr	Gly	Arg	His	Leu	Asp	Thr	Leu	Arg	Val	Val	Ala	35	40	45	
Gln	Glu	Ala	Gln	Ser	Leu	Gly	Gly	Gln	Cys	Val	Pro	Val	Val	Cys	Asp	50	55	60	
Ser	Ser	Gln	Glu	Ser	Glu	Val	Arg	Ser	Leu	Phe	Glu	Gln	Val	Asp	Arg	65	70	75	80
Glu	Gln	Gln	Gly	Arg	Leu	Asp	Val	Leu	Val	Asn	Asn	Ala	Tyr	Ala	Gly	85	90	95	
Val	Gln	Thr	Ile	Leu	Asn	Thr	Arg	Asn	Lys	Ala	Phe	Trp	Glu	Thr	Pro	100	105	110	
Ala	Ser	Met	Trp	Asp	Asp	Ile	Asn	Asn	Val	Gly	Leu	Arg	Gly	His	Tyr	115	120	125	
Phe	Cys	Ser	Val	Tyr	Gly	Ala	Arg	Leu	Met	Val	Pro	Ala	Gly	Gln	Gly	130	135	140	
Leu	Ile	Val	Val	Ile	Ser	Ser	Pro	Gly	Ser	Leu	Gln	Tyr	Met	Phe	Asn	145	150	155	160
Val	Pro	Tyr	Gly	Val	Gly	Lys	Ala	Ala	Cys	Asp	Lys	Leu	Ala	Ala	Asp	165	170	175	
Cys	Ala	His	Glu	Leu	Arg	Arg	His	Gly	Val	Ser	Cys	Val	Ser	Leu	Trp	180	185	190	
Pro	Gly	Ile	Val	Gln	Thr	Glu	Leu	Leu	Lys	Glu	His	Met	Ala	Lys	Glu	195	200	205	
Glu	Val	Leu	Gln	Asp	Pro	Val	Leu	Lys	Gln	Phe	Lys	Ser	Ala	Phe	Ser	210	215	220	
Ser	Ala	Glu	Thr	Thr	Glu	Leu	Ser	Gly	Lys	Cys	Val	Val	Ala	Leu	Ala	225	230	235	240
Thr	Asp	Pro	Asn	Ile	Leu	Ser	Leu	Ser	Gly	Lys	Val	Leu	Pro	Ser	Cys	245	250	255	
Asp	Leu	Ala	Arg	Arg	Tyr	Gly	Leu	Arg	Asp	Val	Asp	Gly	Arg	Pro	Val	260	265	270	
Gln	Asp	Tyr	Leu	Ser	Leu	Ser	Ser	Val	Leu	Ser	His	Val	Ser	Gly	Leu	275	280	285	
Gly	Trp	Leu	Ala	Ser	Tyr	Leu	Pro	Ser	Phe	Leu	Arg	Val	Pro	Lys	Trp	290	295	300	
Ile	Ile	Ala	Leu	Tyr	Thr	Ser	Lys	Phe								305	310		

<210> 4809
 <211> 999
 <212> DNA
 <213> Homo sapiens

<400> 4809
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 120
 tcctgtaaga gactgttccc tcctcccaca cttccttgag aagcacttgc cctccagga
 180
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 240
 aggagggggc ggccaggatg ctcaagtgtg tcagcatagg ccaggcccct gctaccttga
 300
 ccctgagggc cagagcacag gcggaactcg gacatagggc cacagggtgac tgcttaatga
 360
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 420
 acccagggct ggggtacaga ggggtgggggt taaaaatggt tcatctgtcg caggacacct
 480
 ggaggatgag gaaagagccc ccaggcaaac ccattctgtg agcaattccc atctgctgtc
 540
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 600
 cacagcggcc tcctaaccaa caccctgctg gctctggtac cagcccacgc cagacagaga
 660
 agccagccat cattgtcctt gtcttctctc ccgagaaagt cgaggctctg gcagggtcct
 720
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 780
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 840
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 900
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 999

<210> 4810
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 4810
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 20 25 30
 Ser Gln Pro Gly Cys His Ser Gly Leu Leu Thr Asn Thr Pro Ala Ala
 35 40 45
 Leu Val Pro Ala His Ala Arg Gln Arg Ser Gln Pro Ser Leu Leu Leu

50		55		60
Ser Ser Ser Pro Arg Lys Ser Arg Ser Trp Gln Gly Ser Gly Pro Met				
65	70	75	80	
Trp Pro Gly Pro Gly Tyr Phe Pro Asp Leu Thr Ser Pro Thr Ala Gln				
	85	90	95	
Pro Leu Gln Leu Leu Gly Ala Leu His Gly Cys Ser Phe Pro Pro Pro				
	100	105	110	
Leu Pro Ser Gly Gln Pro Cys Pro				
115	120			

<210> 4811

<211> 3207

<212> DNA

<213> Homo sapiens

<400> 4811

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120
atgaaccctg cccagaagcc ccagccccc cccaggagcg ccggcagaag cctgttgctg
180
accctcggc acctgcccc ctccctaagg actacgcttt taccttcttc gacccaatg
240
accggcgctg ccaggagatc ctgtttgacc ctcagaccac catccccgag ctgtttgcca
300
ttgtgcgcca gtgggtgccc caagtccagc acaagataga cgtcatcggc aatgagattc
360
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420
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480
cagctgctgg cgctgggcga gatgtgacgc tgcgtagcgc tggaccaaca tgaacgcgct
540
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600
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720
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780
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900
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960
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1020
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1080
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1140

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gcacccccct cctctgtcac ctccacaccc ggaccccccc ggatggactt ctcccgtgtc
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accggcaaag gccgcaggga acacaaaggc aagaagaaga ccccatcatc cccatctctg
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1380
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1440
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1620
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1740
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1980
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2160
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2220
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2280
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2340
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2460
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2520
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2580
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2640
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2700
caatcatgag gtccttgtgc ctggtatgga ggagactgca gtcaggatat gcattccagg
2760

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 2820
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 2940
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 3060
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 3180
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 3207

<210> 4812

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4812

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Leu	Arg	Thr	Leu	Leu	Glu	Glu	Ala	Val	Pro	Leu	Ser	Cys	Ala	Leu	Pro
			20					25					30		
Lys	Val	Thr	Leu	Pro	Asn	Tyr	Asp	Asn	Val	Pro	Gly	Asn	Leu	Met	Leu
			35				40					45			
Ser	Ala	Leu	Gly	Leu	Arg	Leu	Gly	Asp	Arg	Val	Leu	Leu	Asp	Gly	Gln
			50			55					60				
Lys	Thr	Gly	Thr	Leu	Arg	Phe	Cys	Gly	Thr	Thr	Glu	Phe	Ala	Ser	Gly
65					70				75					80	
Ser	Trp	Val	Gly	Val	Glu	Leu	Asp	Glu	Pro	Glu	Gly	Lys	Asn	Asp	Gly
			85					90					95		
Ser	Val	Gly	Gly	Val	Arg	Tyr	Phe	Ile	Cys	Pro	Pro	Lys	Gln	Gly	Leu
			100					105					110		
Phe	Ala	Ser	Val	Ser	Lys	Ile	Ser	Lys	Ala	Val	Asp	Ala	Pro	Pro	Ser
			115				120					125			
Ser	Val	Thr	Ser	Thr	Pro	Gly	Pro	Pro	Arg	Met	Asp	Phe	Ser	Arg	Val
			130			135					140				
Thr	Gly	Lys	Gly	Arg	Arg	Glu	His	Lys	Gly	Lys	Lys	Lys	Thr	Pro	Ser
145					150					155				160	
Ser	Pro	Ser	Leu	Gly	Ser	Leu	Gln	Gln	Arg	Asp	Gly	Ala	Lys	Ala	Glu
			165					170					175		
Val	Gly	Asp	Gln	Val	Leu	Val	Ala	Gly	Gln	Lys	Gln	Gly	Ile	Val	Arg
			180					185					190		
Phe	Tyr	Gly	Lys	Thr	Asp	Phe	Ala	Pro	Gly	Tyr	Trp	Tyr	Gly	Ile	Glu
			195				200					205			
Leu	Asp	Gln	Pro	Thr	Gly	Lys	His	Asp	Gly	Ser	Val	Phe	Gly	Val	Arg
			210			215					220				
Tyr	Phe	Thr	Cys	Pro	Pro	Arg	His	Gly	Val	Phe	Ala	Pro	Ala	Ser	Arg
225					230					235				240	
Ile	Gln	Arg	Ile	Gly	Gly	Ser	Thr	Asp	Ser	Pro	Gly	Asp	Ser	Val	Gly

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                245                250                255
Ala Lys Lys Val His Gln Val Thr Met Thr Gln Pro Lys Arg Thr Phe
                260                265                270
Thr Thr Val Arg Thr Pro Lys Asp Ile Ala Ser Glu Asn Ser Ile Ser
                275                280                285
Arg Leu Leu Phe Cys Cys Trp Phe Pro Trp Met Leu Arg Ala Glu Met
                290                295                300
Gln Ser
305

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<210> 4813
 <211> 400
 <212> DNA
 <213> Homo sapiens

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<400> 4813
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120
agtgactgtg ggtgggaaag gaggccgtgg tggtgcagc tttcctctgc aaacctccac
180
ctcgcccaca gggcttggt tttctccag ctgtccagga aaccaccatc atgattgtta
240
aacacagatt tgaacattca cgaagaaact tccagggtga gccaaaccct cttctcccc
300
actgcacctc caagcagcct tcctgaaagg gaaaagagta cagacctgcc ctctggggag
360
ccctgtgccc tgccatgacc agcctttccc cttcacgcgt
400

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<210> 4814
 <211> 125
 <212> PRT
 <213> Homo sapiens

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<400> 4814
Met Ala Gly His Arg Gly Pro Gln Arg Ala Gly Leu Tyr Ser Phe Pro
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Phe Gln Glu Gly Cys Leu Glu Val Gln Trp Gly Gly Arg Gly Phe Gly
 20          25          30
Ser Pro Trp Lys Phe Leu Arg Glu Cys Ser Asn Leu Cys Leu Thr Ile
 35          40          45
Met Met Val Val Ser Trp Thr Ala Gly Gly Lys Ala Lys Pro Cys Gly
 50          55          60
Arg Gly Gly Gly Leu Gln Arg Lys Ala Ala Ala Thr Thr Ala Ser Phe
 65          70          75          80
Pro Thr His Ser His Trp Gln Thr Gly Gly Gln Val Gln Ser Pro Lys
 85          90          95
Glu Thr Ala Ala Cys Ala Gly His Pro Pro Gly Thr Ala Phe Ser Leu
100          105          110
Ile Leu Pro Val Pro Pro Thr Cys Trp Val Ser Val Ala
115          120          125

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<210> 4815
 <211> 528
 <212> DNA
 <213> Homo sapiens

<400> 4815
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 atttgatga tacaccactg actttctttg tttggaatac acgttatgaa ccttttctgg
 120
 agcatgtcta caagctctgt acgcaaacga tctgaagggtg aagagaagac attaacaggg
 180
 gacgtgaaaa ccagtcctcc acgaactgca ccaaagaaac agctaccttc tattcccaaa
 240
 aatgctttgc ccataactaa gcctacatca cctgccccag cagcacagtc aacaaatggc
 300
 acccatgcct cttacggacc cttctacctg gaatattcac tccttgacaga atttaccttg
 360
 gttgtgaagc agaagctacc aggcgtctat gtgcagccat cttatcgctc tgcattaatg
 420
 tagtttgag taatattcat acggcatgga cttaccaag atggcgtatt taagtttaca
 480
 gtttacatcc ctgataacta tccagatggg gactgtccac gcttggtg
 528

<210> 4816
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 4816
 Met Asn Pro Phe Trp Ser Met Ser Thr Ser Ser Val Arg Lys Arg Ser
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 Glu Gly Glu Glu Lys Thr Leu Thr Gly Asp Val Lys Thr Ser Pro Pro
 20 25 30
 Arg Thr Ala Pro Lys Lys Gln Leu Pro Ser Ile Pro Lys Asn Ala Leu
 35 40 45
 Pro Ile Thr Lys Pro Thr Ser Pro Ala Pro Ala Ala Gln Ser Thr Asn
 50 55 60
 Gly Thr His Ala Ser Tyr Gly Pro Phe Tyr Leu Glu Tyr Ser Leu Leu
 65 70 75 80
 Ala Glu Phe Thr Leu Val Val Lys Gln Lys Leu Pro Gly Val Tyr Val
 85 90 95
 Gln Pro Ser Tyr Arg Ser Ala Leu Met
 100 105

<210> 4817
 <211> 1106
 <212> DNA
 <213> Homo sapiens

<400> 4817
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ggtgggggac gggccgaggc gatggcggag aagtttgacc acctagagga gcacctggag
 120
 aagttcgtgg agaacattcg gcagctcggc atcatcgtca gtgacttcca gcccagcagc
 180
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 240
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 300
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 360
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 420
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 480
 ccttcttaac cagctcaccc tccctgtgtg aagatcccc gggactgca tgccgctga
 540
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 600
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 660
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 720
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 960
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 1106

<210> 4818

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4818

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Glu	Asn	Ile	Arg	Gln	Leu	Gly	Ile	Ile	Val	Ser	Asp	Phe	Gln	Pro	Ser
			20					25					30		
Ser	Gln	Ala	Gly	Leu	Asn	Gln	Lys	Leu	Asn	Phe	Ile	Val	Thr	Gly	Leu
			35				40					45			
Gln	Asp	Ile	Asp	Lys	Cys	Arg	Gln	Gln	Leu	His	Asp	Ile	Thr	Val	Pro
			50			55					60				
Leu	Glu	Val	Phe	Glu	Tyr	Ile	Asp	Gln	Gly	Arg	Asn	Pro	Gln	Leu	Tyr
65					70				75					80	
Thr	Lys	Glu	Cys	Leu	Glu	Arg	Ala	Leu	Ala	Lys	Asn	Glu	Gln	Val	Lys

	85		90		95
Gly Lys Ile Asp Thr Met Lys Lys Phe Lys Ser Leu Leu Ile Gln Glu					
	100		105		110
Leu Ser Lys Val Phe Pro Glu Asp Met Ala Lys Tyr Arg Ser Ile Arg					
	115		120		125
Gly Glu Asp His Pro Pro Ser					
	130		135		

<210> 4819

<211> 1655

<212> DNA

<213> Homo sapiens

<400> 4819

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 120
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 300
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 660
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 720
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 1380
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 1560
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 1655

<210> 4820

<211> 551

<212> PRT

<213> Homo sapiens

<400> 4820

Arg	Pro	Arg	Pro	Gly	Leu	Arg	Gly	Gly	Arg	Ala	Pro	Cys	Glu	Val	Thr	1	5	10	15
Met	Glu	Ala	Gly	Gly	Leu	Pro	Leu	Glu	Leu	Trp	Arg	Met	Ile	Leu	Ala	20	25	30	
Tyr	Leu	His	Leu	Pro	Asp	Leu	Gly	Arg	Cys	Ser	Leu	Val	Cys	Arg	Ala	35	40	45	
Trp	Tyr	Glu	Leu	Ile	Leu	Ser	Leu	Asp	Ser	Thr	Arg	Trp	Arg	Gln	Leu	50	55	60	
Cys	Leu	Gly	Cys	Thr	Glu	Cys	Arg	His	Pro	Asn	Trp	Pro	Asn	Gln	Pro	65	70	75	80
Asp	Val	Glu	Pro	Glu	Ser	Trp	Arg	Glu	Ala	Phe	Lys	Gln	His	Tyr	Leu	85	90	95	
Ala	Ser	Lys	Thr	Trp	Thr	Lys	Asn	Ala	Leu	Asp	Leu	Glu	Ser	Ser	Ile	100	105	110	
Cys	Phe	Ser	Leu	Phe	Arg	Arg	Arg	Arg	Glu	Arg	Arg	Thr	Leu	Ser	Val	115	120	125	
Gly	Pro	Gly	Arg	Glu	Phe	Asp	Ser	Leu	Gly	Ser	Ala	Leu	Ala	Met	Ala	130	135	140	
Ser	Leu	Tyr	Asp	Arg	Ile	Val	Leu	Phe	Pro	Gly	Val	Tyr	Glu	Glu	Gln	145	150	155	160
Gly	Glu	Ile	Ile	Leu	Lys	Val	Pro	Val	Glu	Ile	Val	Gly	Gln	Gly	Lys	165	170	175	
Leu	Gly	Glu	Val	Ala	Leu	Leu	Ala	Ser	Ile	Asp	Gln	His	Cys	Ser	Thr	180	185	190	
Thr	Arg	Leu	Cys	Asn	Leu	Val	Phe	Thr	Pro	Ala	Trp	Phe	Ser	Pro	Ile	195	200	205	
Met	Tyr	Lys	Thr	Thr	Ser	Gly	His	Val	Gln	Phe	Asp	Asn	Cys	Asn	Phe	210	215	220	
Glu	Asn	Gly	His	Ile	Gln	Val	His	Gly	Pro	Gly	Thr	Cys	Gln	Val	Lys	225	230	235	240
Phe	Cys	Thr	Phe	Lys	Asn	Thr	His	Ile	Phe	Leu	His	Asn	Val	Pro	Leu				

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 260 265 270
 Thr Val Glu Gly His Pro Ser Ala Asp Lys Asn Trp Ala Tyr Lys Tyr
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 Asp Lys Glu Ala Met Ala Leu Ala Asn Ser Val Gln Gly Cys Leu Ile
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 Ile Tyr Arg Cys Arg Ala Ser Gly Ile Phe Leu Arg Leu Glu Gly Gly
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<212> DNA

<213> Homo sapiens

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 Ala Leu Gln Gln Lys Arg Glu Thr Leu Ser Pro Leu Cys Leu Ile Pro
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 Met Val Thr Ser Pro Arg Glu Glu Gln Gln Leu Leu Ala Ser Thr Ser
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 Lys Pro Val Val Lys Leu Leu His Asn Arg Ser Asn Asn Lys Tyr Ser
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 Tyr Thr Ser Thr Ser Asp Asp Asn Leu Leu Lys Asn Ile Glu Leu Phe
 115 120 125
 Asp Lys Leu Ala Leu Arg Phe His Gly Arg Leu Leu Phe Leu Lys Asp
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 Val Leu Gly Asp Glu Ile Cys Cys Trp Ser Phe Tyr Gly Gln Gly Arg
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